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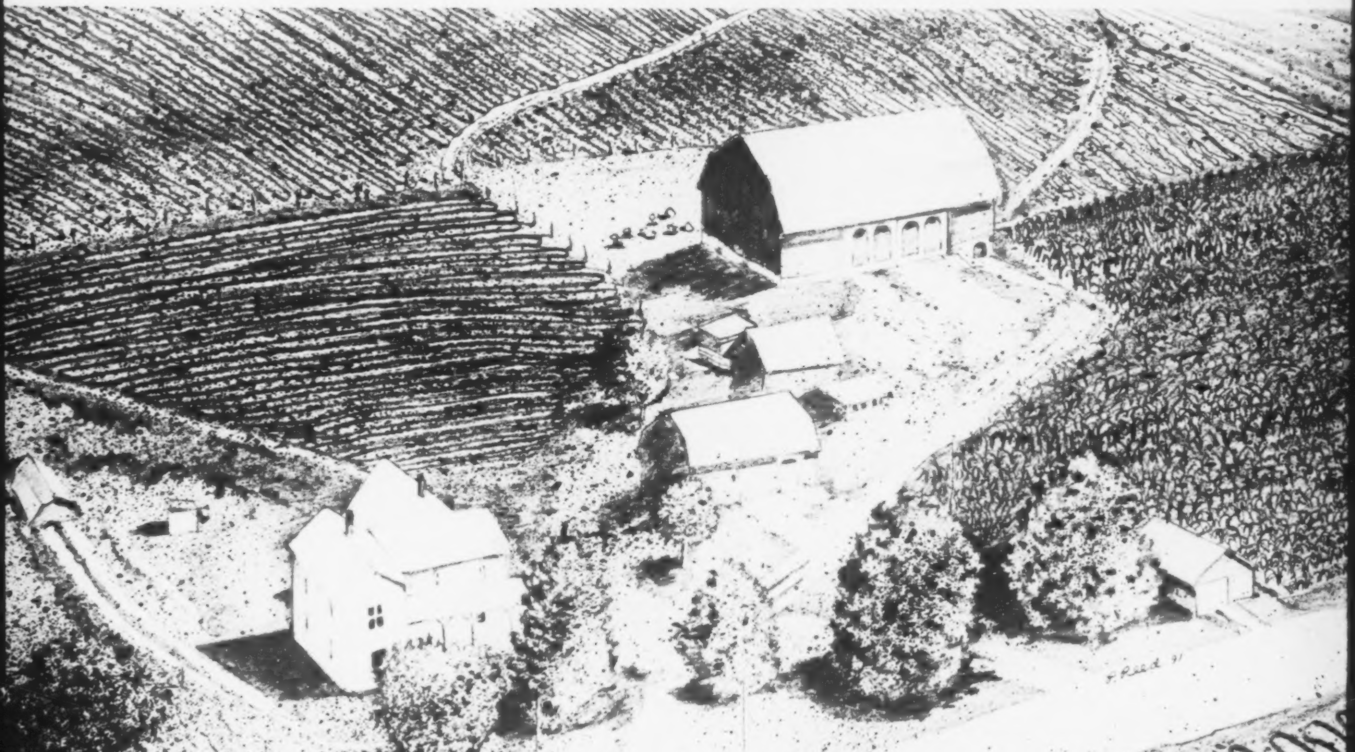
MICHIGAN AGRICULTURAL STATISTICS

1991

MICHIGAN DEPARTMENT OF AGRICULTURE



STATE OF MICHIGAN

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July 1991

The food and agriculture industry, Michigan's second largest industry, contributes $24 billion to our state's economy each year.

For many years, the Michigan Department of Agriculture has provided statistical information on the agriculture industry through the Michigan Agricultural Statistics Service (MASS).

MASS is responsible for gathering, analyzing and distributing accurate, up-to-date agricultural statistics for Michigan. Producers, processors and consumers have grown to rely on MASS for the information necessary when making important agribusiness decisions.

MASS conducts surveys that help our state's farmers, agribusiness, researchers and other data users to stay in touch with the many changes in the food and agriculture industry. MASS also provides data on the impact of the agricultural industry on our state's economy to educators, legislators, retailers and others interested in Michigan agriculture, for use in planning for the future.

This publication, Michigan Agricultural Statistics 1991, provides a complete, current reference book on our state's vital agricultural industry. I hope you find it both interesting and informative. The Michigan Agricultural Statistics Service welcomes your questions or comments.

Sincerely,

Bill

Bill Schuette
Director

RECYCLED PAPER

MICHIGAN AGRICULTURAL STATISTICS

1991

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COVER: The cover illustration based on Ervin P. Davis Centennial Farm, Grant Township, Grand Traverse County (photo circa 1957). Photo courtesy: Centennial Farm Program, Bureau of History, Michigan Department of State. Illustration by Patrick G. Reed.

This bulletin is provided free to Michigan farmers and reporting agribusiness firms. Others may obtain copies at $3.00 each. Please make checks payable to USDA-NASS and send it with your request to P.O. Box 20008, Lansing, MI 48901-0608.

MASS-91-01

Michigan
Agricultural
Statistics
Service

Michigan Dept. of Agriculture
U.S. Department of Agriculture

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July 1991

Dear Friends:

We, the staff of Michigan Agricultural Statistics Service, are pleased to present the 1991 issue of Michigan Agricultural Statistics.

This project is made possible through the voluntary cooperation of thousands of farmers, elevators, livestock buyers, fruit and vegetable processors, cold storages, and many other agribusiness firms and individuals who willingly provided the necessary data.

Additional recognition is also due the Michigan Department of Agriculture who, by means of a Cooperative Agreement, provided the funds to assist in compiling the data and meeting publication and related costs.

Your suggestions for improvement of future reports should be directed to this office and will be appreciated. Thank you.

Sincerely,

Don J Fedewa

Don J. Fedewa
State Statistician

RECYCLED PAPER

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Michigan's Rank in Nation's Agriculture, 1990

COMMODITY	Rank Among States	Production	Unit	Percent of U.S. Production	Leading State
		1,000			
Cranberry Beans	1	320	Cwt.	100.0	**Michigan**
Black Turtle Beans	1	910	Cwt.	84.1	**Michigan**
Tart Cherries	1	160,000	Lbs.	76.6	**Michigan**
Navy Beans	1	3,545	Cwt.	53.8	**Michigan**
Small White Beans	1	150	Cwt.	44.0	**Michigan**
Cucumbers for Pickles	1	141.6	Tons	21.6	**Michigan**
All Dry Beans	1	5,445	Cwt.	16.8	**Michigan**
Geraniums, Potted	1	16,955	Pots	15.2	**Michigan**
Gladioli	2	37,300	Spikes	22.4	Florida
Bedding Plants	2	9,785	Flats	12.9	California
Easter Lilies, Potted	2	1,090	Pots	11.4	California
Asparagus	3	259	Cwt.	10.6	California
Snap Beans for Processing	3	76.9	Tons	9.7	Wisconsin
Flowering Hanging Baskets	3	1,800	Baskets	8.6	N. Carolina
Apples	3	750,000	Lbs.	7.9	Washington
Carrots	3	1,876	Cwt.	6.5	California
Celery	3	1,290	Cwt.	6.3	California
Mushrooms	3	19,408	Lbs.	2.7	Pennsylvania
Dark Red Kidney Beans	4	150	Cwt.	13.7	Minnesota
Light Red Kidney Beans	4	160	Cwt.	12.7	California
Sugarbeets	4	3,266	Tons	11.8	Minnesota
Concord Grapes	4	38	Tons	11.3	Washington
Sweet Cherries	4	13.5	Lbs.	8.6	Washington
Tomatoes for Processing	4	162.3	Tons	1.6	California
All Grapes	5	46	Tons	8.3	California
Alfalfa Hay	5	4,875	Tons	5.8	Wisconsin
Prunes & Plums	5	6	Tons	2.2	California
Strawberries	5	143	Cwt.	1.1	California
Cauliflower	5	70	Cwt.	.9	California
Mohair	5	140	Lbs.	.9	Texas
Sweet Corn, Fresh	6	788	Cwt.	4.9	Florida
Floriculture	6	123,866	Dollars	4.5	California
Spearmint	6	66	Lbs.	2.6	Washington
Peaches	6	45,000	Lbs.	2.0	California
Rye	7	580	Bushels	5.7	S. Dakota
Poinsettias, Potted	7	2,985	Pots	5.7	California
Milk	7	5,233,000	Lbs.	3.5	Wisconsin
Butter	7	18,021	Lbs.	1.4	Wisconsin
Pears	7	2.5	Tons	.3	Washington
Corn for Silage	8	4,060	Tons	4.7	Wisconsin
Mink[1]	8	184	Pelts	4.0	Wisconsin
Ice Milk	8	12,568	Gallons	3.6	California
Corn for Grain	8	238,050	Bushels	3.0	Iowa
Trout	8	1,895	Head	2.1	Idaho
Onions	9	2,442	Cwt.	4.6	California
Oats	9	13,050	Bushels	3.7	S. Dakota
Lettuce	9	207	Cwt.	.3	California
All Hay	10	5,335	Tons	3.6	Wisconsin
All Potatoes	10	12,115	Cwt.	3.1	Idaho
Ice Cream	11	27,217	Gallons	3.3	California
Soybeans	11	43,320	Bushels	2.3	Illinois
Hogs & Pigs[2]	11	1,260	Head	2.3	Iowa
Milk Sherbet	12	1,646	Gallons	3.3	California
Pinto Beans	12	150	Cwt.	1.1	Colorado
All Cheese[3]	13	107,890	Lbs.	1.8	Wisconsin
Turkeys	13	4,300	Birds	1.5	N. Carolina
Tomatoes, Fresh Market	15	300	Cwt.	.9	Florida
Cash Receipts From Marketings	22	3,144,937	Dollars	1.9	California

---

[1] 1989 Data

[2] December 1 inventory

[3] Excluding cottage cheese

Farm Numbers and Acreage, Value of Farm Real Estate, Michigan[1]

YEAR	Number of Farms	Average Size per Farm	Total Land in Farms	Average Value per Acre of Land and Buildings	Total Value of Land and Buildings	Farms Rented for Cash per Acre	Cropland Rented for Cash per Acre
		Acres	*1,000 Acres*	*Dollars*	*Million Dollars*	*Dollars*	*Dollars*
1991	[2]	[2]	[2]	1,085	11,718	52.80	45.50
1990	54,000	200	10,800	1,005	10,854	43.80	41.40
1989	55,000	196	10,800	983	10,616	42.50	44.20
1988	56,000	195	10,900	971	10,584	39.20	41.70
1987	57,000	193	11,000	924	10,164	41.50	41.90
1986	59,000	188	11,100	1,012	11,230	43.90	47.70
1985	61,000	185	11,300	1,108	12,517	46.00	51.10
1980	65,000	175	11,400	1,111	12,665	46.40	49.40
1970	84,000	151	12,700	326	4,140	15.60	17.50
1960	118,000	131	15,400	194	2,989	14.10	—
1950	161,000	111	17,900	99	1,764	—	—
1940	190,000	97	18,400	51	913	—	—
1930	179,000	101	18,000	68	1,161	—	—
1920	196,447	97	19,033	75	1,437	—	—
1910	206,960	92	18,941	48	901	—	—
1900	203,261	86	17,562	33	583	—	—

[1] Starting with 1979, USDA estimates of farm numbers and land in farms is based on the definition "a farm is a place as of June 1 that sells or could sell $1,000 of agricultural products during the year." Prior to 1979 farm definition was "place of 10 or more acres that had annual sales of $50 or more or places that had annual sales of $250 or more."

[2] Information available July 30, 1991.

Number of Farms and Land in Farms by Economic Sales Class, Michigan

YEAR	Economic Sales Class			Number of Farms
	$1,000- $9,999	$10,000- $99,999	$100,000- and Over	
		Number		
1990	**28,000**	**18,000**	**8,000**	**54,000**
1989	30,000	18,000	7,000	55,000
1988	32,000	18,000	6,000	56,000
1987[1]	32,600	18,000	6,400	57,000
		1,000 acres		
1990	**1,500**	**3,300**	**6,000**	**10,800**
1989	1,500	4,300	5,000	10,800
1988	2,200	4,400	4,300	10,900
1987[1]	2,100	4,400	4,500	11,000

[1] First year estimated.

Michigan Crop Acreage, Production and Value

CATEGORIES AND ANNUAL TOTALS	Acreage Harvested	Total Production	Value of Production
	1,000 Acres	*1,000 Tons*	*1,000 Dollars*
1990 CROPS:			
Field Crops[1]	6,512	23,029	1,561,658[2]
Fruit	119	548	139,268
Vegetables	119	772	137,356
TOTAL CROPS:			
1990	**6,750**	**24,349**	**1,838,282**[2]
1989	6,592	22,531	1,812,570
1988	6,626	16,898	1,549,467
1987	6,349	20,697	1,418,545
1986	7,203	23,515	1,341,897

[1] Includes minor crops.

[2] Includes 1989 sugarbeet production valued at the 1988 level.

Production Index by Groups, United States (1977 = 100)

YEAR	All Crops[1]	Feed Grains	Hay and Forage	Food Grains	Sugar Crops
1990	**111**	**111**	**102**	**136**	**104**
1989	106	108	100	107	105
1988	91	73	88	98	105
1987	106	106	101	107	111
1986	107	123	107	106	106

[1] Includes vegetables, fruits, nuts and some other crops not in separate groups shown, and farm vegetable gardens.

Production Index by Groups, Michigan (1977 = 100)

YEAR	All Crops[1]	Feed Grains[2]	Hay	Cash Crops[3]	Fruit
1990	**140**	**111**	**187**	**155**	**115**
1989	129	106	182	126	143
1988	93	52	148	112	132
1987	116	91	143	128	164
1986	134	.121	201	111	112

[1] Includes feed grains, hay, cash crops and fruit.

[2] Corn, oats and barley.

[3] Wheat, dry beans, soybeans, sugarbeets and potatoes.

Record Highs and Lows In Michigan Agriculture

FIELD CROPS & VEGETABLES	Year Estimates Started	Record	Acreage		Yield			Production	
			Harvested	Year	Unit	Per Acre	Year	Total	Year
			1,000					*1,000*	
Corn for grain	1924	High	2,800	1981	Bu.	115	1990	293,180	1982
		Low	577	1929		24.5	[1]	15,637	1929
Corn for Silage	1924	High	498	1971	Ton	14.5	1990	5,565	1977
		Low	211	1942		4.7	1930	1,542	1930
Winter Wheat	1909	High	1,515	1953	Bu.	60	1985	45,600	1984
		Low	400	1987		10.5	1912	7,350	1912
Oats	1866	High	1,658	1918	Bu.	67	[2]	69,388	1946
		Low	200	1988		18.5	1921	6,000	1988
Barley	1866	High	303	1932	Bu.	68	1985	8,400	1918
		Low	16	1974		13.5	1933	546	1866
Rye	1866	High	913	1919	Bu.	33	1989	12,143	1919
		Low	7	1866		8.8	1934	105	1866
Soybeans	1924	High	1,210	1988	Bu.	38	1990	43,320	1990
		Low	1	1930		8	1927	10	1930
Potatoes	1866	High	374	1895	Cwt.	272	1990	23,256	1904
		Low	36.4	1975		26	[3]	3,557	1876
Dry Beans	1909	High	690	1930	Cwt.	16.5	1990	8,585	1963
		Low	185	1988		3.2	1917	1,656	1916
Sugarbeets	1906	High	157	1990	Ton	21.3	1970	3,266	1990
		Low	48	1943		5.5	1916	298	1943
All Hay	1866	High	2,907	1924	Ton	3.7	1990	5,743	1986
		Low	780	1866		.6	1895	1,014	1866
Alfalfa	1919	High	1,444	1950	Ton	3.9	1990	5,040	[4]
		Low	74	1919		1.1	1934	118	1919
Spearmint	1935	High	8.7	1954	Lb.	47	1935	280	1948
		Low	.7	1935		20	1965	30	1965
Asparagus	1928	High	23.5	1990	Cwt.	31	1947	259	1990
		Low	1	1928		9	1981	17	1928
Carrots	1929	High	7.5	1984	Cwt.	350	1930	2,025	1984
		Low	.5	1929		150	1959	132	1936
Cauliflower	1939	High	1.9	1958	Cwt.	141	1949	212	1949
		Low	.7	[5]		36	1959	38	1973
Celery	1928	High	7.2	1941	Cwt.	470	1982	1,918	1941
		Low	1.9	1960		174	1935	590	1959
Cucumbers for Pickles	1918	High	46.3	1949	Ton	6.7	1987	160,800	1987
		Low	9.3	1932		.5	1924	17,856	1932
Lettuce	1952	High	1.7	1963	Cwt.	250	[6]	384	1967
		Low	.8	1988		85	1953	110	1953
Onions	1928	High	12.7	1935	Cwt.	350	1960	2,933	1984
		Low	5.0	1928		120	1935	852	1928
Snap Beans (Proc.)	1918	High	26.5	1990	Ton	2.9	[7]	76,850	1990
		Low	.8	1921		.6	1947	600	1921
Sweet Corn	1949	High	15.2	1961	Cwt.	80	1970	1,016	1970
		Low	9.0	1988		42	1949	525	1949
Strawberries	1928	High	11.6	1957	Lb.	8,000	[8]	45,144	1940
		Low	2.2	[9]		1,080	1934	11,880	1934
Tomatoes (Proc.)	1918	High	9.7	1982	Ton	29.5	1990	205	1982
		Low	1.0	1921		2.7	1943	5	1921
Tomatoes (Fresh)	1928	High	9.4	1943	Cwt.	120	[10]	797	1943
		Low	2.4	1988		60	1959	204	1988

Record Highs and Lows In Michigan Agriculture (Continued)

FRUIT	Year Estimates Started	Record	Trees Of Bearing Age	Year	Production		
					Unit	Total	Year
			1,000				
Apples	1889	High	10,928	1899	Mil. Lbs.	1,100	1985
		Low	2,200	[11]		53	1945
Tart Cherries	1925	High	3,650	[12]	Mil. Lbs.	380	1964
		Low	1,339	1929		18	1927
Sweet Cherries	1925	High	980	[13]	Mil. Lbs.	75	1978
		Low	79	1929		1	1945
Peaches	1889	High	12,500	1898	Mil. Lbs.	245	[14]
		Low	400	1982		7	1918
Pears	1889	High	1,319	1898	Ton	48,600	1964
		Low	140	1990		2,425	1890
Prunes & Plums	1919	High	750	1972	Ton	25,000	1971
		Low	209	1941		1,700	1945
Grapes[15]	1889	High	18,500	1929	Ton	77,900	1932
		Low	5,100	[7]		4,200	1889

LIVESTOCK & PRODUCTS	Year Estimates Started	Record	Inventory January 1 Or Production		
			Unit	Total	Year
Cattle & Calves	1867	High	1,000	2,036	1944
		Low	Head	538	1867
Beef Cows	1920	High	1,000	239	1977
		Low	Head	24	[16]
Milk Cows	1867	High	1,000	1,080	1945
		Low	Head	225	1867
Cattle on Feed	1930	High	1,000	250	1991
		Low	Head	57	1931
Hogs & Pigs[17]	1867	High	1,000	1,397	1944
		Low	Head	512	1935
Sheep	1867	High	1,000	3,100	1867
		Low	Head	105	1988
Chickens (all)[17]	1924	High	1,000	15,512	1944
		Low	Head	6,600	1990
Turkeys (Number Raised)	1929	High	1,000	4,300	1990
		Low	Head	253	[18]
Milk	1924	High	Mil. Lbs.	5,758	1964
		Low		3,941	1927
Eggs[17]	1924	High	Mil. Eggs	1,697	1944
		Low		1,104	1929
Wool	1934	High	1,000 Lbs.	8,424	1934
		Low		722	1987

[1] 1930, 1934
[2] 1985, 1989
[3] 1887, 1916
[4] 1985, 1986, 1989
[5] 1976, 1986
[6] 1982, 1985
[7] 1989, 1990
[8] 1976, 1982
[9] 1987, 1989, 1990
[10] 1979, 1983, 1984, 1990
[11] 1960, 1961
[12] 1963, 1964, 1965, 1966, 1967
[13] 1973, 1974, 1975
[14] 1945, 1946
[15] Vines of bearing age
[16] 1925, 1933
[17] December 1
[18] 1929, 1930

Per Capita Consumption of Major Food Commodities, United States[1]

COMMODITY	1989[2]	1988	1987	1986	1985
			Pounds		
Red Meats[3,4]	111.3	115.1	113.3	118.3	120.9
Fish[3]	15.7	15.0	15.5	14.5	14.4
Poultry[3,5]	60.5	57.1	55.3	51.1	49.4
Eggs	29.7	31.0	32.1	32.0	32.2
Dairy Products					
Cheese (excluding cottage)[6]	23.7	23.6	24.0	23.0	22.5
Fluid Whole Milk[7]	95.2	105.2	111.4	116.0	122.9
Fluid Lowfat Milk[8]	103.6	100.0	100.1	98.2	93.4
Fluid Cream[9]	4.7	4.7	4.6	4.7	4.4
Yogurt	4.3	4.6	4.5	4.4	4.1
Ice Cream (product weight)	16.0	17.2	18.3	18.4	18.1
Fats & Oils					
Table Spreads	14.4	14.7	15.1	16.0	15.7
Shortening	21.2	21.2	21.3	22.0	22.8
Salad & Cooking Oils	23.8	24.8	24.7	24.1	23.5
Fresh Fruits					
Citrus[10]	24.4	27.1	25.7	26.0	22.6
Noncitrus[11]	72.2	71.9	75.1	69.5	66.5
Frozen Fruit	4.8	3.8	3.9	3.6	3.3
Fresh Vegetables	99.3	96.2	93.0	88.3	88.3
Potatoes					
Fresh	49.8	51.4	48.9	49.4	46.7
Frozen	46.1	42.6	47.1	45.8	45.1
Chips/Shoestrings	17.8	17.3	17.7	18.2	17.7
Grains					
Wheat Flour[12]	122.7	129.3	129.3	125.2	124.3
Rice	15.7	14.3	13.5	11.6	9.1
Pasta[13]	12.8	12.2	11.9	11.6	11.3
Breakfast Cereals	14.6	14.1	13.4	13.1	12.8
Other					
Coffee	9.8	9.3	10.1	10.5	10.4
Cocoa (chocolate liquor equiv.)	4.0	3.9	3.9	3.8	3.7
Peanuts (shelled)	7.1	6.8	6.4	6.4	6.3
Dry Edible Beans, Peas & Lentils	5.9	7.2	5.4	7.0	7.5
Soft Drinks (gal.)	32.0	31.7	30.5	31.9	30.4
Total Population (millions)	248.8	245.2	242.8	240.5	238.2

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[1] Retail weight unless otherwise stated. Data on calendar year basis except fresh citrus fruits, peanuts, & rice, which are on a crop-year basis.

[2] Preliminary.

[3] Boneless, trimmed weight.

[4] Beef, veal, pork, lamb, & mutton.

[5] Chicken & turkey.

[6] Natural equivalent of cheese & cheese products. Total product weight is greater than natural equivalent because processed cheese & cheese food are made from natural cheese & other dairy products.

[7] Plain & flavored.

[8] Plain, flavored & buttermilk.

[9] Heavy cream, light cream, & half & half.

[10] Includes grapefruit, lemons, limes, tangelos, & tangerines.

[11] Apples, apricots, avocados, bananas, cherries, cranberries, figs, grapes, kiwifruit, mangos, nectarines, olives, papayas, peaches, pears, persimmons, pineapples, plums & pomegranates.

[12] White, whole wheat, semolina, & durum flour.

[13] Excludes fresh pasta products.

Source: Agricultural Outlook, November 1990.

Farm Labor

The purpose of the Agricultural Labor Survey (ALS) is to provide regional and national estimates of the number of farm workers, hours worked, and wage rates by type of worker and method of pay. Eighteen states publish regional totals. Michigan, as part of the Lake States region with Wisconsin and Minnesota, publishes regional total quarterly (January, April, July, October).

In addition, this survey provides information on the number of agricultural workers working in perishable commodities to determine the number of replenishment workers that can be admitted into the U.S. to offset any shortage. This is required by the Immigration Reform and Control Act of 1986. The survey data is also used to establish minimum wage rates for domestic and foreign agricultural workers. Wage rates are used as a component of the Parity Index.

The Department of Commerce uses data on hired workers to compute income components of the Gross National Product (GNP) for the farm section. Plus, banks and lending institutions use the data to establish their loan policies.

Hours Worked and Wage Rates[1]

YEAR & MONTH	Hours Worked Per Week Self-employed	 Unpaid	 Hired	Wage Rates for All Hired Workers
1991		*Hours*		*Dollars Per Hour*
January	**40.9**	**32.9**	**40.0**	**5.30**
April	**46.9**	**34.2**	**37.3**	**5.59**
1990				
January	41.8	35.8	35.8	5.33
April	46.6	38.2	37.8	5.38
July	54.3	43.4	32.8	4.96
October	53.3	42.0	37.8	5.25
1989				
January	43.9	33.7	36.6	4.63
April	49.0	34.6	35.3	4.53
July	53.7	40.2	39.3	4.57
October	55.7	43.3	42.0	4.98

[1] Lake Region (Michigan, Minnesota, Wisconsin).

Workers on Farms[1]

YEAR & MONTH	All Farm Workers	Self-employed	Unpaid[2]	Hired Number of Workers	Hired: Expected to be Employed 150 Days or More	Hired: Expected to be Employed 149 Days or Less
1991	*1,000*	*1,000*			*1,000*	
January	**265**	**153**	**58**	**54**	**42**	**12**
April	**308**	**165**	**69**	**74**	**54**	**20**
1990						
January	275	165	59	51	46	5
April	294	168	62	64	47	17
July	415	194	105	116	53	63
October	335	177	81	77	46	31
1989						
January	255	147	55	53	44	9
April	284	161	65	58	45	13
July	397	190	100	107	49	58
October	370	193	99	78	39	39

[1] Lake Region (Michigan, Minnesota, Wisconsin).
[2] Unpaid workers must do at least 15 hours of unpaid work during the survey week.

Wage Rates for Hired Workers[1]

YEAR & MONTH	Type of Work Field	 Livestock	 Field & Livestock	 Supervisory	 Other	Method of Pay Hourly	 Piece Rate	 Other
1991			*Dollars Per Hour*				*Dollars Per Hour*	
January	**6.14**	**4.84**	**4.99**	**6.94**	**6.50**	**5.53**	[2]	**5.06**
April	**5.86**	**5.07**	**5.38**	**7.15**	**6.62**	**5.31**	[2]	**5.94**
1990								
January	6.65	4.48	4.93	8.30	8.33	5.65	[2]	4.81
April	5.38	4.84	5.01	7.74	7.30	5.08	[2]	5.74
July	5.06	4.26	4.75	6.91	7.36	4.95	6.19	4.84
October	5.21	4.61	4.97	7.29	7.13	5.52	5.94	4.65
1989								
January	4.49	4.21	4.28	8.97	5.93	4.94	[2]	4.31
April	4.80	4.03	4.26	7.14	[2]	4.99	[2]	4.07
July	4.37	4.21	4.31	7.01	[2]	4.77	[2]	4.08
October	5.24	4.12	4.82	7.46	5.83	5.12	6.01	4.50

[1] Lake Region (Michigan, Minnesota, Wisconsin).
[2] Insufficient data.

WATER QUALITY INITIATIVE

This is the first of a series of National Agriculture Statistics Service data covering on-farm fertilizer and agricultural chemical use. The data presented were funded through the President's Water Quality Initiative.

The Water Quality Initiative is a multi-agency program designed to provide farmers, ranchers, and foresters the knowledge and technical means to respond independently and voluntarily to on and off-farm environmental concerns. In the past, farm level data have been inadequate to determine the magnitude of water quality problems or the benefits and costs of alternative solutions for the farmer and other affected parties. These data will help fill some of the data needs that analysts require to find solutions to the complex environmental issues of the 1990's.

All farms selected were surveyed to determine which chemicals they were applying to their fields. The sample fields were randomly selected from those determined to have the commodity in the June Agriculture Survey so that the probability of selecting a particular field was directly proportional to the total planted acreage of the commodity. In Michigan the data is based on 110 samples for corn, 68 samples for potatoes and 150 samples for soybeans. The following are the results for Michigan.

Corn Fertilizer Usage

Fertilizer	Trade Name	Total Acreage Receiving Material	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
		Percent	*Number*	*Pounds*	*Pounds*	*Million Pounds*
Nitrogen	N	97	1.93	65	125	291
Phosphate	P	91	1.06	50	53	116
Potash	K	96	1.29	76	98	226

Corn Chemical Usage

Active [1] Ingredient	Trade Name	Total Acreage Receiving Material	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
Herbicides		*Percent*	*Number*	*Pounds*	*Pounds*	*1,000 Pounds*
Alachlor	Lasso	22	1.00	1.94	1.94	1,024
Atrazine	Aatrex	79	1.15	1.30	1.50	2,844
Cyanazine	Bladex	18	1.00	1.40	1.40	605
Diacamba	Banvell	11	1.00	0.41	0.41	108
Fonofos	Dyfonate	7	1.00	1.12	1.12	188
Metolachlor	Dual	32	1.00	1.70	1.70	1,306

[1] Insufficient reports were available to publish State level usage estimates for the following active ingredients: 2,4-D, Bromozynil, Butylate, Carbofuran, Chlorpyrifos, EPTC, and Terfutos.

Soybean Fertilizer Usage

Fertilizer	Trade Name	Total Acreage Receiving Material	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
		Percent	*Number*	*Pounds*	*Pounds*	*Million Pounds*
Nitrogen	N	67	1.06	19	20	15
Phosphate	P	70	1.00	42	42	34
Potash	K	78	1.10	70	77	69

Soybean Chemical Usage

Active [1] Ingredient	Trade Name	Total Acreage Receiving Material	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
Herbicides		*Percent*	*Number*	*Pounds*	*Pounds*	*1,000 Pounds*
Alachlor	Lasso	25	1.07	1.93	2.06	592
Bentazon	Basagran	9	1.10	0.71	0.78	81
Chlorimuron-Ethyl	Classic	26	1.03	0.03	0.03	9
Imazethapyr	Pursuit	21	1.00	0.06	0.06	14
Linuron	Linex Lorox	29	1.00	0.72	0.72	240
Metolachlor	Dual	27	1.03	1.64	1.69	525
Metribuzin	Lexone Sencor	39	1.07	0.36	0.39	175
Pendi-methalin	Prowl	19	1.14	0.78	0.89	194

[1] Insufficient reports were available to publish State level usage estimates for the following active ingredients: Actifluoren, Clomazone, Fluazifop-P-Butyl, Glyphosphate, Imazaquin, and Trifluralin.

Fall Potato Fertilizer Usage

Fertilizer	Trade Name	Total Acreage Receiving Material[1]	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
		Percent	*Number*	*Pounds*	*Pounds*	*Million Pounds*
Nitrogen	N	96	2.23	70	156	5
Phosphate	P	96	1.38	104	144	5
Potash	K	99	1.88	116	218	7

[1] Refers to acres receiving one or more applications of a specific fertilizer ingredient.

Fall Potato Chemical Usage

Active Ingredient	Trade Name	Total Acreage Receiving Material[1]	Average Applications Per Acre	Average Application Rate Per Acre	Application Rate Per Crop Year	Total Quantity Applied
Herbicides[2]		*Percent*	*Number*	*Pounds*	*Pounds*	*1,000 Pounds*
Linuron	Linex Lorox	38	1.00	0.87	0.87	11
Metolachlor	Dual	37	1.00	1.88	1.88	24
Metribuzin	Sencor	60	1.06	0.41	0.43	9
Insecticides[3]						
Azinphos-Methyl	Guthion	27	1.25	0.35	0.44	4
Carbaryl	Sevin	28	1.12	1.24	1.39	13
Carbofuran	Furdan	22	1.31	0.66	0.86	6
Endosulfan	Thiodan	30	1.50	0.83	1.24	13
Ethyl Parathion	Parathion	28	1.71	0.55	0.94	9
Esfenvalerate	Asana	22	1.31	0.03	0.04	[4]
Methamidophos	Monitor	28	1.24	0.78	0.97	9
Phorate	Thimet	43	1.00	2.83	2.83	41
Fungicides[5]						
Copper Hydroxide	Champion Kocide	20	1.00	1.61	1.61	11
Mancozeb	Dithane Manzate	67	2.58	1.14	2.95	67
Maneb	Maneb	17	2.50	1.48	3.71	21
Metalaxyl	Ridomil	20	1.33	0.14	0.19	1
Vine Killers						
Diquat	Diquat	62	1.05	0.33	0.35	7

[1] Refers to acres receiving one or more applications of a specific pesticide active ingredient.

[2] Insufficient reports to publish State level estimates for the following herbicides: EPTC, Pendimethalin, and Trifluralin.

[3] Insufficient reports to publish State level estimates for the following insecticides: Disulfoton, Ethoprop, Fonofos, Metam-sodium, Oxamyl, Propargite, Permethrin, and Phosphamidon.

[4] Less than 500 pounds.

[5] Insufficient reports to publish State level estimates for the following fungicides: Iprodione and Metiram.

INCOME AND PRICES

Cash receipts from 1990 marketings of Michigan crops, livestock and livestock products exceeded $3.14 billion. Total cash receipts were up 7 percent from the previous year, reaching their highest level since 1983. Crop cash receipts, $1.71 billion, were up 5 percent from 1989. Increased production from record yields for many crops in the state contributed to the increase. Livestock cash receipts, $1.43 billion, were up 9 percent from the previous year. Livestock receipts were up considerably from the past few years as dairy, turkey and hog prices increased. Michigan placed 22nd nationally in total cash receipts. The cash receipts data provide only a partial picture of the farm income situation. To arrive at net farm income, components such as farm production expenses, government payments, net changes in farmer owned commodity inventories, and other farm related income must be included.

Detailed 1990 farm expense data for Michigan will not be available until the later part of 1991. Preliminary U.S. data shows that prices farmers paid for production inputs, interest, taxes, and wage rates increased by 8 percent during 1990.

Production inputs showing the largest increases from 1989 to 1990 were fuels and oil, seed, pesticides, fertilizer, and feed. Inputs showing decreases included interest and electricity.

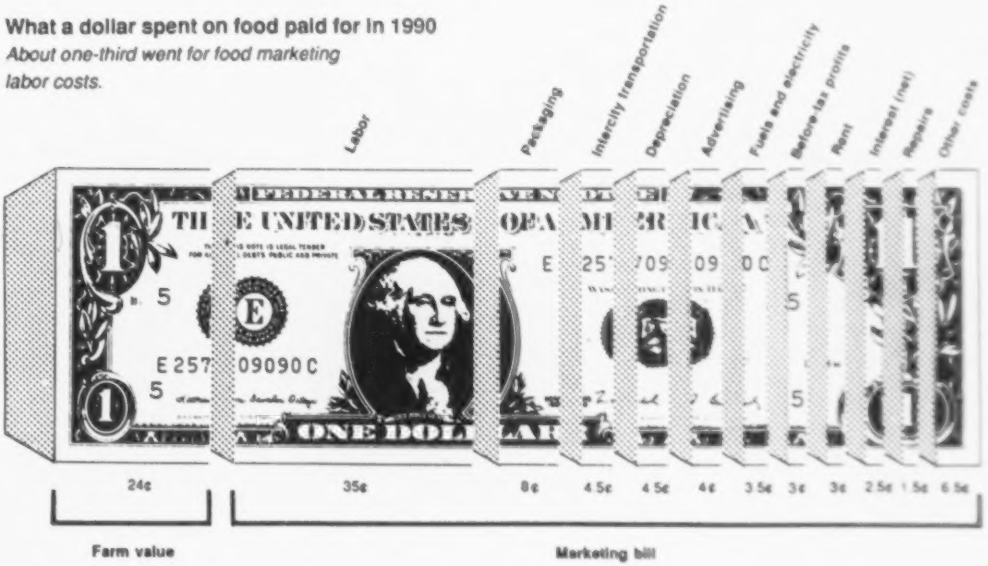
Farm Income

Statistics on 1990 Michigan net farm income and farm financial status will be published in the fall of 1991, too late to be included in this bulletin. Tables in this section provide updated income and finance statistics for the years 1985 through 1989. The overall farm financial situation showed substantial improvement during 1989. Total farm debt in Michigan declined by 5 percent from 1988. Total farm debt fell by more than $1.2 billion (31 percent) from 1985 to 1989. The total value of farm assets during 1989, at $13.4 billion, was up 5 percent from the previous year. Higher values for real estate and livestock inventories contributed the most to the overall increase. Farm real estate values increased by nearly 7 percent, the third straight annual increase following several years of declining values. The debt/asset ratio of 19.7 showed significant improvement from the 1988 ratio of 21.9 and the 1987 ratio of 24.0.

Net farm income increased 65 percent during 1989 as gross farm income increased by a greater amount than total farm production expenses. Gross farm income, $3.64 billion, was up 17 percent from 1988. Cash income (receipts) from marketings of crops and livestock, at $2.94 billion, was up 7 percent. A $354.6 million increase in the value of inventory adjustment was also a major contributor to the overall increase. The value of inventory adjustment is the net year-to-year change in the quantity of grain and livestock owned by farmers at the end of the year. Farm production expenses totaled $2.88 billion, up 8 percent from a year earlier.

What a dollar spent on food paid for in 1990

About one-third went for food marketing labor costs.



Includes food eaten at home and away from home. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and many miscellaneous items.

Michigan Farm Balance Sheet

ITEM	**1989**	1988	1987	1986	1985
	Million Dollars				
Total Farm Assets	**13,434.2**	12,741.8	12,543.9	12,221.9	13,484.2
Real estate[1]	**8,843.7**	8,299.3	8,132.0	7,929.2	8,852.3
Livestock and poultry[2]	**983.6**	878.1	875.1	798.2	772.8
Machinery and motor vehicles[3]	**2,386.3**	2,307.1	2,299.0	2,404.7	2,484.5
Crops[4]	**455.8**	497.7	508.0	338.5	674.2
Financial assets	**764.9**	759.6	729.8	751.4	700.4
Total Farm Debt	**2,650.9**	2,796.7	3,008.6	3,413.9	3,866.2
Real estate debt[5]	**1,464.8**	1,574.7	1,722.5	1,968.2	2,237.7
Nonreal estate debt[6]	**1,186.1**	1,222.0	1,286.1	1,445.7	1,628.5
Equity	**10,783.3**	9,945.1	9,535.3	8,808.0	9,618.0
Debt/Assets Ratio	**19.7**	21.9	24.0	27.9	28.7

[1] Excludes value of operator dwellings.
[2] Excludes equine and broilers.
[3] Includes only farm share value for trucks and autos.
[4] All non-CCC crops held on farms plus the value above loan rate for crops held under CCC.
[5] Excludes debt on operator dwellings, but includes CCC storage and drying facility loans.
[6] Excludes debt for nonfarm purposes.

Gross and Net Income, Michigan

ITEM	**1989**	1988	1987	1986	1985
	Million Dollars				
Gross farm income[1]	**3,643.8**	3,121.8	3,208.4	3,011.5	3,356.5
Cash Income					
Farm marketings	**2,940.4**	2,739.4	2,631.4	2,590.9	2.915.4
Crops	**1,627.4**	1,534.6	1,349.0	1,350.4	1,684.1
Livestock and products	**1,312.9**	1,204.8	1,282.5	1,240.5	1,231.3
Government payments	**262.0**	303.0	391.1	220.9	116.6
Other farm income[2]	**147.4**	130.6	121.7	108.5	121.1
Noncash Income					
Value of home consumption	**16.5**	22.3	19.4	22.2	24.4
Rental value of farm dwellings	**154.9**	158.4	156.4	142.5	167.6
Value of inventory adjustment	**122.7**	−231.9	−111.7	−73.5	11.3
Total production expenses[1]	**2,879.3**	2,659.4	2,648.3	2,653.0	2,826.5
NET FARM INCOME	**764.6**	462.4	560.1	358.6	530.0

[1] Includes operator households.
[2] Includes forest product sales, custom feeding services, machine hire and custom work, and other farm business-related income.

Income per Farm

YEAR	Michigan		United States	
	Gross Income	Net Income	Gross Income	Net Income
	Dollars		*Dollars*	
1989	**66,251**	**13,902**	**87,177**	**21,494**
1988	55,746	8,257	79,120	19,013
1987	56,288	9,826	76,356	18,654
1986	51,042	6,078	69,571	13,788
1985	55,025	8,689	71,062	13,516

Cash Receipts from Marketings, Michigan

COMMODITY	1989	1988	1987	1986	1985
			1,000 Dollars		
LIVESTOCK & PRODUCTS					
Dairy	**693,950**	640,686	653,183	672,316	697,078
Cattle & Calves	**269,283**	258,869	297,368	238,955	230,022
Hogs	**197,907**	193,744	212,560	195,293	178,243
Eggs	**68,338**	47,237	54,648	64,116	59,255
Sheep & Lambs	**4,882**	4,564	5,813	4,957	4,919
All Chickens	**3,592**	2,988	2,664	3,744	5,406
Turkeys	**51,156**	31,920	28,620	35,802	31,096
Honey	**3,841**	3,676	2,883	2,285	[1]
Other Livestock	**19,989**	21,108	24,717	23,036	25,296
TOTAL LIVESTOCK & PRODUCTS	**1,312,938**	1,204,792	1,282,456	1,240,504	1,231,315
CROPS					
Field Crops & Vegetables:					
Corn	**267,277**	257,601	218.283	351,762	478,932
Dry Edible Beans	**92,186**	56,613	79,116	65,872	79,487
Soybeans	**229,014**	267,985	186,720	132,985	205,484
Sugarbeets	**92,340**	86.148	87,330	68,640	79,980
Wheat	**116,159**	82,650	56,304	66,178	136,222
Potatoes	**64,576**	54,018	53,116	51,783	62,389
Hay	**88,083**	86,069	66,420	64,115	55,678
Oats	**15,542**	12,228	17,166	9,553	22,769
Mushrooms	**20,711**	20,754	18,573	16,760	16,498
Mint	**976**	598	650	957	1,113
Rye	**657**	973	815	596	713
Barley	**2,675**	2,002	2,648	2,492	2,252
Vegetables	**163,451**	160,551	148,481	139,984	153,835
Other Crops[2]	**12,098**	11,940	12,910	12,600	13,295
Fruit:					
Apples	**79,526**	75,818	79,182	79,864	66,769
Cherries	**53,945**	49,661	35,326	44,271	62,605
Grapes	**11,415**	13,548	15,609	7,916	10,952
Peaches	**10,490**	8,028	9,600	8,864	11,515
Strawberries	**6,081**	6,081	7,022	6,366	6,300
Pears	**2,047**	1,445	1,884	2,558	1,933
Prunes & Plums	**2,281**	2,173	2,304	2,668	3,285
Other Fruit[3]	**41,810**	36,335	37,065	35,350	33,268
Other Products[4]					
Greenhouse, Nursery, Ornamentals	**254,109**	241,370	212,458	178,226	178,836
TOTAL CROPS	**1,627,449**	1,534,589	1,348,982	1,350,360	1,684,110
TOTAL CASH RECEIPTS	**2,940,387**	2,739,381	2,631,438	2,590,864	2,915,425

[1] Included in other livestock. Honey receipts not published separately in 1985.

[2] Includes seed crops, maple syrup, miscellaneous field crops.

[3] Includes Blueberries.

[4] Forestry products receipts no longer counted as cash receipts, but are included in the other farm-related income component of gross farm income.

Government Payments, Michigan

PROGRAM	1990[1]	1988[1]	1987[1]	1986[1]	1985
			1,000 Dollars		
Conservation Programs	**15,433**	11,969	12,945	2,929	3,687
Wheat Programs	**6,385**	19,066	31,655	24,579	14,840
Feed Grain Programs	**98,903**	216,887	247,473	151,624	79,661
Misc. Programs[2]	**141,250**	55,103	99,070	41,778	18,433
TOTAL	**261,971**	303,025	391,143	220,910	116,621

[1] Includes both cash payments and payment-in-kind (PIK).

[2] Programs included are Wool Act, Water and Lakes, Conservation Reserve, Livestock Indemnity, Animal Waste Management, Forest Incentive, Dairy Indemnity, Dairy Termination, Emergency Feed, Extended Storage, PIK Storage, Milk Diversion, Payment-In-Kind, Disaster Programs (crops and non-crops).

Farm Expenses

Prices Paid by Michigan Farmers: Annual Averages[1]

COMMODITY	Unit	1990	1989	1988	1987	1986
		Dollars				
Framing lumber, 2"X4" fir	M bd. ft.	**399.00**	404.00	392.00	391.00	382.00
Roofing, gal. steel, 28-29 Ga.	100 sq. ft.	**45.70**	44.00	43.00	41.00	41.00
Plywood, ½" C-D-X, 4'X8'	Sheet	**10.10**	10.50	9.49	9.60	9.65
Post, steel	Each	**2.65**	2.61	2.48	2.50	2.60
Dairy feed, 16% protein	Ton	**184.00**	190.00	184.00	153.00	167.00
Hog conc., 38-42% protein	Ton[2]	**295.00**	346.00	17.10	13.80	13.50
Soybean meal, 44% protein	Cwt.	**11.60**	14.40	14.70	11.00	10.70
Gasoline, regular, bulk	Gallon	**1.20**	1.09	.960	.955	.968
Diesel fuel	Gallon	**.97**	.800	.770	.748	.829
Motor oil, HD, detergent	Gallon	**4.89**	4.73	4.70	4.58	4.69
Truck tire, 7.50-16, load range D	Each	**79.40**	78.40	74.30	73.15	73.00
Tractor tire, 18.4-38, 6 ply	Each	**447.00**	433.00	412.00	395.00	405.00
Tractors: 110-129 hp.	Each	**45,750.00**	43,900.00	40,800.00	38,950.00	38,500.00
170-240 hp. 4-wd.	Each	**79,750.00**	79,600.00	76,050.00	75,650.00	76,000.00
Corn planter, 4-row[3]	Each	**10,700.00**	10,100.00	9,800.00	8,930.00	8,600.00
Plows, 1-way: 5 bottom	Each	**8,245.00**	7,830.00	7,365.00	6,685.00	6,700.00
Grain drill, 15-17 tube	Each	**6,550.00**	6,345.00	6,050.00	5,770.00	5,700.00
5-20-20	Ton	**162.00**	167.00	169.00	150.00	144.00
12-12-12	Ton	**170.00**	165.00	164.00	146.00	147.00
18-46-0	Ton	**225.00**	238.00	250.00	227.00	215.00
Anhydrous Ammonia	Ton	**196.00**	200.00	198.00	180.00	197.00
2, 4-D, 4 lb./gal. emul.	5 gallon	**54.10**	52.10	50.60	48.70	45.00
Atrazine, WP, 80%	5 lb.	**11.70**	10.80	9.11	8.80	8.60
Lasso, 4 lb./gal. emul.	5 gallon	**114.00**	108.00	102.00	96.80	100.00
Bladex, 4 lb./gal. liquid	Gallon	**21.70**	20.10	19.10	18.50	18.00
Dual, 8lb./gal. emul.	Gallon	**55.50**	52.90	49.70	42.20	48.40
Treflan, 4lb./gal. emul.	5 gallon	**134.00**	132.00	129.00	126.00	125.00

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[1] The National Agricultural Statistics Service in February 1986, reduced the monthly Prices Paid by Farmers Surveys to a quarterly basis due to budget reductions. Starting in 1986 Prices Paid by Michigan farmers are not available and only national or regional estimates are published.

[2] CWT for 1986-88.

[3] With fertilizer attachment.

Farm Production Expenses, Michigan

ITEM	1989	1988	1987	1986	1985
	Million Dollars				
Feed	**315.7**	280.7	263.6	255.1	245.2
Livestock and Poultry	**38.6**	37.1	35.4	28.0	27.5
Seed	**123.3**	107.9	107.6	105.4	103.5
Fertilizer and lime	**220.6**	197.9	188.5	201.3	224.3
Pesticides	**146.8**	114.0	115.8	111.8	112.9
Fuel and oil	**122.6**	113.4	113.6	122.0	147.9
Electricity	**45.4**	48.3	46.6	39.1	41.2
Repair and maintenance	**212.4**	189.2	188.5	180.9	184.1
Other miscellaneous[1]	**330.5**	294.8	309.8	297.6	318.5
Real estate interest	**159.6**	171.9	190.4	205.6	222.4
Nonreal estate interest	**140.1**	142.3	156.6	159.6	178.0
Contract and hired labor expenses	**248.5**	234.6	226.6	207.4	205.9
Net rent to nonoperator landlords	**32.5**	12.9	36.7	33.4	59.0
Capital consumption	**478.7**	462.5	421.9	472.8	517.3
Property taxes	**263.7**	252.0	246.6	233.0	238.9
TOTAL PRODUCTION EXPENSES	**2,879.3**	2,659.4	2,648.3	2,653.0	2,826.5

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[1] Includes machine hire and custom work, marketing, storage, and transportation expenses.

Prices Received by Farmers

Prices Received for the 1989 Marketing Year

YEAR OR MONTH	Corn per Bu.	Wheat per Bu.	Oats per Bu.	Soy-beans per Bu.	Dry Beans per Cwt.	Navy Beans per Cwt.	Potatoes per Cwt.	All Hay per Ton	Alfalfa Hay per Ton
					Dollars				
1989 June	—	—	—	—	—	—	—	108.00	110.00
July	—	3.60	1.71	—	—	—	13.20	53.00	55.00
August	—	3.60	1.49	—	—	—	7.55	53.00	55.00
September	—	3.62	1.37	5.48	25.50	24.60	6.05	63.00	65.00
October	2.17	3.70	1.35	5.57	25.50	24.40	6.25	63.00	65.00
November	2.18	3.77	1.34	5.56	25.90	23.90	7.30	73.00	75.00
December	2.13	3.83	1.41	5.51	25.70	24.70	8.05	73.00	75.00
1990 January	2.18	3.60	1.35	5.48	25.70	25.40	8.85	68.00	70.00
February	2.27	3.63	1.43	5.42	29.20	28.80	9.55	58.00	60.00
March	2.38	3.67	1.41	5.62	28.70	28.70	9.70	63.00	65.00
April	2.52	3.50	1.43	5.77	29.40	29.10	10.40	58.00	60.00
May	2.59	3.67	1.44	6.01	29.90	29.40	12.00	68.00	70.00
June	2.73	3.57	1.38	5.95	27.30	27.30	—	63.00	65.00
July	2.66	—	—	5.98	25.70	24.70	—	58.00	60.00
August	2.63	—	—	5.98	21.70	21.70	—	63.00	65.00
September	2.52	—	—	—	—	—	—	63.00	65.00
Marketing Year Avg.									
1990[1]	2.20	2.40	1.15	5.65	18.40	—	—	63.50	—
1989	2.25	3.60	1.45	5.50	26.60	—	7.55	69.00	—
1988	2.53	3.59	2.65	7.28	31.90	—	7.30	94.00	—
1987	1.97	2.63	1.59	5.62	14.80	—	7.30	60.50	—
1986	1.43	2.38	1.19	4.67	23.60	—	6.00	52.00	—
1985	2.14	2.84	1.17	4.93	15.00	—	4.40	53.00	—

[1] Preliminary Prices

Preliminary Prices Received for the 1990 Marketing Year

YEAR OR MONTH	Corn per Bu.	Wheat per Bu.	Oats per Bu.	Soy-beans per Bu.	Dry Beans per Cwt.	Navy Beans per Cwt.	Potatoes per Cwt.	All Hay per Ton	Alfalfa Hay per Ton
					Dollars				
1990 June	—	—	—	—	—	—	—	63.00	65.00
July	—	2.66	2.66	—	—	—	7.80	58.00	60.00
August	—	2.45	1.11	—	—	—	5.75	63.00	65.00
September	—	2.32	1.13	6.01	19.10	17.80	5.10	63.00	65.00
October	2.16	2.23	1.07	5.75	19.20	17.30	5.75	63.00	65.00
November	2.11	2.19	1.24	5.67	20.00	16.60	6.25	63.00	65.00
December	2.12	2.14	1.24	5.55	17.70	16.40	6.55	68.00	70.00
1991 January	2.14	2.23	1.18	5.58	16.10	15.70	6.70	68.00	70.00
February	2.22	2.20	1.26	5.53	17.40	16.90	6.85	58.00	60.00
March	2.36	2.36	1.24	5.61	18.60	18.10	7.50	64.00	65.00
April	2.39	2.46	1.33	5.64	18.20	18.20	7.95	59.00	60.00
May								68.00	70.00
June									
July									
August									
September									

Prices Received for Livestock and Livestock Products
Prices Received for the 1990 Marketing Year

YEAR OR MONTH		All Hogs per Cwt.[1]	Beef Cattle per Cwt.[2]	Cows per Cwt.[3]	Steers & Heifers per Cwt.	Milk Cows per Head[4]	Calves per Cwt.	Table Eggs per Doz.[1]	All Milk Wholesale per Cwt.
				Dollars				*Cents*	*Dollars*
1989	**December**	47.00	—	—	—	—	—	.75	—
1990	**January**	45.80	61.50	50.40	68.90	1,200.00	94.20	.71	16.00
	February	46.80	63.00	52.30	70.90	—	97.30	.53	15.10
	March	50.30	62.90	52.00	70.40	—	87.30	.69	14.40
	April	53.90	62.80	52.80	70.30	1,170.00	110.00	.60	13.80
	May	59.50	65.10	52.10	71.60	—	107.00	.40	14.00
	June	59.30	65.20	53.60	71.80	—	124.00	.51	14.00
	July	58.40	64.20	52.90	70.60	1,200.00	112.00	.40	14.30
	August	54.80	66.20	53.30	71.30	—	103.00	.55	14.40
	September	52.50	63.00	51.80	69.80	—	108.00	.54	14.40
	October	55.20	61.40	49.50	70.70	1,240.00	86.80	.54	13.60
	November	49.00	61.60	45.80	72.40	—	86.20	.61	13.10
	December	—	62.20	48.70	72.10	—	88.10	—	12.10
Marketing Year Avg.									
	1990	52.30	63.20	51.30	70.80	1,200.00	99.00	.57	14.10
	1989	41.50	58.50	47.60	66.90	1,060.00	93.70	.56	13.60
	1988	41.40	56.10	45.80	64.00	990.00	85.40	.37	12.40
	1987	50.00	52.50	42.80	59.50	920.00	71.90	.39	12.60
	1986	48.30	44.50	35.20	51.80	810.00	55.00	.46	12.60

[1] Hog and egg prices pertain to marketing year of previous December through November.
[2] Combined price for "cows" and "Steers and Heifers".
[3] Beef cows sold for slaughter and herd replacement, and cull dairy cows sold for slaughter.
[4] Sold for dairy herd replacement only. Price series changed to quarterly, January 1982.

Preliminary Prices Received for the 1991 Marketing Year

YEAR OR MONTH		All Hogs per Cwt.	Beef Cattle per Cwt.	Cows per Cwt.	Steers & Heifers per Cwt.	Milk Cows per Head	Calves per Cwt.	Table Eggs per Doz.	All Milk Wholesale per Cwt.
				Dollars				*Cents*	*Dollars*
1990	**December**	46.10	—	—	—	—	—	.65	—
1991	**January**	48.00	62.00	48.70	72.30	1,160.00	87.20	.65	12.00
	February	50.10	64.70	50.80	74.20	—	94.40	.51	12.00
	March	48.70	64.50	50.60	73.80	—	105.00	.68	11.70
	April	49.40	64.40	50.60	71.90	1,170.00	106.00	.48	11.40
	May								
	June								
	July								
	August								
	September								
	October								
	November								
	December								

Index of Prices Received for Crop Commodity Groups (1977 = 100)

YEAR	Crops				
	All Crops	Cash Field	Fruit	Vegetables	Feed Crops
1990	**118**	**142**	**85**	**85**	**118**
1989	132	157	91	101	136
1988	121	137	66	95	130
1987	96	122	90	92	83
1986	96	110	85	79	93
1947-1949	55	65	41	34	73
1935-1939	21	25	17	13	31
1910-1914	22	25	17	—	39

Index of Prices Received for Livestock Commodity Groups (1977 = 100)

YEAR	Livestock				ALL LIVESTOCK AND CROPS
	All Livestock	Dairy Products	Meat Animals	Poultry and Eggs	
1990	**152**	**146**	**170**	**111**	**133**
1989	143	142	151	119	137
1988	131	129	145	81	126
1987	132	131	146	74	112
1986	128	132	130	100	111
1947-1949	55	45	57	113	55
1935-1939	23	19	21	55	23
1910-1914	19	16	17	49	20

Index of Prices Paid by Farmers: Annual Averages, United States, 1986-90

INDEX	**1990**	1989	1988	1987	1986
			1977 = 100		
Prices Paid by Farmers for Commodities & Services, Interest, Taxes, and Wage Rates	**184**	178	170	162	159
Production Items	**171**	165	157	148	144
Interest	**174**	176	182	189	211
Taxes	**157**	152	147	144	134
Wage Rates	**192**	186	172	167	160
Production Items, Interest, Taxes, and Wage Rates	**172**	167	160	152	150
Family Living — CPI[1]	**213**	203	194	187	181

[1] Bureau of Labor Statistics, Consumer Price Index for all Urban Consumers.

FIELD CROPS

General Information

Production of field crops for food and livestock feed remains the center of agriculture in Michigan. The preliminary value of field crops at the farm level during 1990 was nearly $1.6 billion, up two percent from 1989. Michigan ranked in the top ten states in the production of alfalfa hay, corn, dry beans, oats, potatoes, rye, sugarbeets, and spearmint. Michigan continued to lead the nation in dry bean production.

The 1990 crop year had nearly ideal summer growing conditions, and excellent fall weather combined to produce record high yields for several Michigan crops. Record yields were established for corn for grain and silage, dry beans, alfalfa and other hay, and soybeans.

Spring planting progressed well during May, but cool temperatures slowed crop emergence. Heavy rains drenched much of lower Michigan the last two weeks of May, causing delays in planting most crops. The lack of adequate sunshine caused poor color in emerging plants and created bacteria and mildew problems in wheat. June was drier than May which allowed farmers to finish planting. Timely rainfall and normal temperatures boosted crop development during July and early August. Favorable moisture supplies enhanced yield prospects but slow crop maturity caused concern. September was an excellent month for crop maturity and the start of fall harvest. Harvest was hampered by rainfall throughout October. Late season crop harvest progressed rapidly under nearly ideal fall conditions. Harvest of most crops was complete by mid-November, with the exception of corn for grain.

Acreage and Production, United States

CROP	Area Harvested		Unit	Yield per Acre		Production	
	1990	1989		**1990**	1989	**1990**	1989
	1,000 Acres					*1,000*	
Corn, for grain	**66,952**	64,703	Bu.	**118.5**	116.3	**7,933,068**	7,525,493
Corn, silage	**6,124**	6,606	Ton	**14.2**	13.0	**86,844**	86,109
Oats	**5,940**	6,882	Bu.	**60.1**	54.3	**357,149**	373,587
Barley	**7,499**	8,313	Bu.	**55.9**	48.6	**418,856**	404,203
Wheat, all	**69,353**	62,189	Bu.	**39.5**	32.7	**2,738,594**	2,036,618
Winter	**49,976**	41,509	Bu.	**40.7**	35.0	**2,033,299**	1,454,642
Durum	**3,502**	3,673	Bu.	**34.9**	25.1	**122,171**	92,229
Other Spring	**15,875**	17,007	Bu.	**36.7**	28.8	**583,124**	489,747
Rye	**373**	484	Bu.	**27.1**	28.2	**10,098**	13,647
Soybeans	**56,502**	59,538	Bu.	**34.0**	32.3	**1,921,787**	1,923,666
Hay, all	**61,557**	63,300	Ton	**2.39**	2.30	**146,985**	145,512
Hay, Alfalfa	**25,401**	25,944	Ton	**3.29**	2.98	**83,555**	77,370
Hay, Other	**36,156**	37,356	Ton	**1.75**	1.82	**63,430**	68,142
Dry Beans[1]	**2,086.4**	1,650.9	Cwt.	**1,554.0**	1,437.0	**32,429**	23,729
Potatoes, all	**1,359.1**	1,281.5	Cwt.	**290.0**	289.0	**393,867**	370,444
Sugarbeets	**1,377.5**	1,294.5	Ton	**20.0**	19.4	**27,593**	25,131
Peppermint, for oil	**101.8**	100.8	Lb.	**68.0**	66.0	**6,953**	6,652
Spearmint, for oil	**33.7**	26.4	Lb.	**76.0**	70.0	**2,565**	1,846

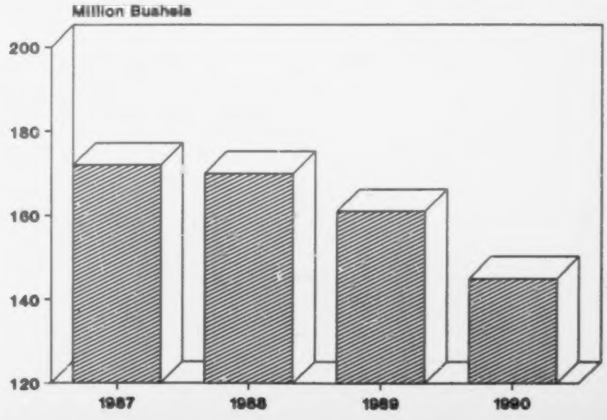
[1] Yield per acre in pounds.

Grain Storage

YEAR	Off Farm		On Farm Capacity
	Number of Facilities	Rated Capacity	
		1,000 Bushels	
1990	**332**	**145,000**	**260,000**
1989	325	161,000	270,000
1988	340	170,000	300,000
1987	343	172,000	285,000
1986	345	158,000	296,029[1]

[1] Capacity data survey indications.

Off Farm Rated Capacity



Field Crop Acreage, Production and Value, Michigan

CROP	YEAR	Acreage		Production			Price Received[1]	Value of Production
		Planted	Harvested	Unit	Per Acre	Total		
		1,000				1,000	Dollars per Unit	1,000 Dollars
CORN, all	**1990**	**2,400**	—	—	—	—	—	—
	1989	2,300	—	—	—	—	—	—
	1988	2,100	—	—	—	—	—	—
	1987	2,300	—	—	—	—	—	—
	1986	2,800	—	—	—	—	—	—
CORN, for grain	**1990**	—	**2,070**	**Bu.**	**115**	**238,050**	**2.20**	**523,710**
	1989	—	1,970	Bu.	113	222,610	2.28	507,551
	1988	—	1,600	Bu.	70	112,000	2.53	283,360
	1987	—	1,980	Bu.	97	192,060	1.97	378,358
	1986	—	2,450	Bu.	105	257,250	1.43	367,868
CORN, silage	**1990**	—	**280**	**Ton**	**14.5**	**4,060**	—	—
	1989	—	300	Ton	13.0	3,900	—	—
	1988	—	450	Ton	7.5	3,375	—	—
	1987	—	300	Ton	13.0	3,900	—	—
	1986	—	320	Ton	13.5	4,320	—	—
WINTER WHEAT	**1990**	**770**	**750**	**Bu.**	**55**	**41,250**	**2.45**	**101,063**
	1989	660	640	Bu.	53	33,920	3.63	123,130
	1988	650	620	Bu.	42	26,040	3.59	93,484
	1987	450	400	Bu.	48	19,200	2.63	50,496
	1986	750	680	Bu.	45	30,600	2.38	72,828
OATS	**1990**	**250**	**225**	**Bu.**	**58**	**13,050**	**1.15**	**15,007**
	1989	330	300	Bu.	67	20,100	1.46	29,346
	1988	300	200	Bu.	30	6,000	2.65	15,900
	1987	350	300	Bu.	57	17,100	1.59	27,189
	1986	330	270	Bu.	63	17,010	1.19	20,242
BARLEY	**1990**	**45**	**43**	**Bu.**	**60**	**2,580**	**1.70**	**4,386**
	1989	45	40	Bu.	58	2,320	2.90	6,728
	1988	50	38	Bu.	32	1,216	3.30	4,013
	1987	55	50	Bu.	55	2,750	1.80	4,950
	1986	60	55	Bu.	59	3,245	1.60	5,192
RYE	**1990**	**135**	**20**	**Bu.**	**29**	**580**	**1.65**	**957**
	1989	120	25	Bu.	33	825	1.70	1,403
	1988	135	25	Bu.	26	650	2.70	1,755
	1987	115	20	Bu.	32	640	2.40	1,536
	1986	145	23	Bu.	31	713	1.40	998
SOYBEANS	**1990**	**1,150**	**1,140**	**Bu.**	**38**	**43,320**	**5.75**	**249,090**
	1989	1,100	1,080	Bu.	36	38,880	5.60	217,728
	1988	1,250	1,210	Bu.	29	35,090	7.28	255,455
	1987	1,100	1,090	Bu.	36	39,240	5.62	220,529
	1986	970	930	Bu.	31	28,830	4.67	134,636
DRY BEANS[2]	**1990**	**350**	**330**	**Cwt.**	**1,650**	**5,445**	**19.70**	**107,267**
	1989	300	265	Cwt.	1,500	3,975	26.30	104,543
	1988	245	170	Cwt.	1,260	2,142	31.90	68,330
	1987	450	395	Cwt.	1,300	5,135	14.80	75,998
	1986	480	340	Cwt.	800	2,720	23.60	64,192

Field Crop Acreage, Production and Value, Michigan (Continued)

CROP	YEAR	Acreage		Production			Price Received[1]	Value of Production
		Planted	Harvested	Unit	Per Acre	Total		
		1,000				1,000	Dollars per Unit	1,000 Dollars
SUGARBEETS	1990	160	157	Ton	20.8	3,266	[3]	[3]
	1989	154	150	Ton	17.1	2,565	41.90	107,474
	1988	152	145	Ton	16.5	2,393	36.00	86,148
	1987	144	142	Ton	20.5	2,911	31.00	90,241
	1986	137	110	Ton	20.8	2,288	30.00	68,640
POTATOES, all	1990	46.0	44.5	Cwt.	272	12,115	6.90	83,398
	1989	43.5	40.0	Cwt.	241	9,650	8.20	79,498
	1988	46.5	43.0	Cwt.	220	9,440	7.30	68,923
	1987	48.0	46.8	Cwt.	254	11,880	5.10	60,588
	1986	53.0	41.5	Cwt.	268	11,120	6.00	66,753
POTATOES, summer	1990	12.0	11.5	Cwt.	250	2,875	[3]	[3]
	1989	10.5	10.0	Cwt.	230	2,300	8.20	18,860
	1988	10.5	9.0	Cwt.	180	1,620	6.10	9,882
	1987	11.0	10.8	Cwt.	200	2,160	5.10	11,016
	1986	11.0	6.5	Cwt.	230	1,495	5.70	8,522
POTATOES, fall	1990	34	33	Cwt.	280	9,240	[3]	[3]
	1989	33	30	Cwt.	245	7,350	8.25	60,638
	1988	36	34	Cwt.	230	7,820	7.55	59,041
	1987	37	36	Cwt.	270	9,720	5.10	49,572
	1986	42	35	Cwt.	275	9,625	6.05	58,231
HAY, all	1990	—	1,450	Ton	3.68	5,335	63.50	338,773
	1989	—	1,550	Ton	3.36	5,205	69.00	359,145
	1988	—	1,900	Ton	2.22	4,220	94.00	396,680
	1987	—	1,400	Ton	2.92	4,090	60.50	247,445
	1986	—	1,770	Ton	3.24	5,743	52.00	298,636
HAY, alfalfa	1990	—	1,250	Ton	3.90	4,875	—	—
	1989	—	1,300	Ton	3.60	4,680	—	—
	1988	—	1,300	Ton	2.60	3,380	—	—
	1987	—	1,100	Ton	3.20	3,520	—	—
	1986	—	1,400	Ton	3.60	5,040	—	—
HAY, other	1990	—	200	Ton	2.30	460	—	—
	1989	—	250	Ton	2.10	525	—	—
	1988	—	600	Ton	1.40	840	—	—
	1987	—	300	Ton	1.90	570	—	—
	1986	—	370	Ton	1.90	703	—	—
SPEARMINT, for oil	1990	—	2.2	Lb.	30	66	17.60	1,162
	1989	—	1.9	Lb.	32	61	16.00	976
	1988	—	1.5	Lb.	24	36	16.60	598
	1987	—	1.8	Lb.	29	52	12.50	650
	1986	—	2.8	Lb.	31	87	11.00	957

[1] Marketing year.

[2] Production per acre in pounds.

[3] Not available at publication time.

CORN

Corn continued to be Michigan's number one crop in value of production during 1990. The 1990 corn for grain crop was valued at nearly $524 million, up 3 percent from 1989. Corn acreage planted for all purposes increased 4 percent, while acreage harvested for silage decreased 7 percent. The average yield for grain set a new record at 115 bushels per acre, up 2 bushels from the previous record set in 1989. Grain prices averaged $2.20 per bushel, down 8 cents from last season's average price. The 1990 acreage harvested for silage dropped 20,000 acres from 1989, but produced a record silage yield of 14.5 tons per acre. The previous record was 14 tons per acre set in 1980 and matched in 1981 and 1982.

In 1990, Huron county continued to lead in corn for grain production, followed by Lenawee, Sanilac, Branch, and St. Joseph counties. Michigan ranked eighth nationally in both grain and silage production. U.S. Corn for grain production was up 5 percent from the 1989 crop.

Grain Corn Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**2,070**	**115**	**238,050**
1989	1,970	113	222,610
1988	1,600	70	112,000
1987	1,980	97	192,060
1986	2,450	105	257,250

Corn Silage Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Tons*	*1,000 Tons*
1990	**280**	**14.5**	**4,060**
1989	300	13.0	3,900
1988	450	7.5	3,375
1987	300	13.0	3,900
1986	320	13.5	4,320

Grain Corn Stocks by Quarter

CROP YEAR	December 1		March 1		June 1		September 1	
	On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm
	1,000 Bushels							
1990	**160,000**	**59,057**	**90,000**	**41,445**				
1989	135,000	67,930	85,000	37,938	43,000	23,622	19,500	10,242
1988	110,000	70,837	71,000	56,216	50,000	34,241	23,000	20,231
1987	148,000	98,829	105,000	96,373	90,000	61,718	45,000	60,245
1986	210,000	92,565	140,000	85,069	88,000	70,935	62,000	67,182

Corn for Grain: Row Width

YEAR	Number of Samples	Row Width, Inches[1]							Average Row Width
		30.5 or Less	30.6 - 32.5	32.6 - 34.5	34.6 - 36.5	36.6 - 38.5	38.6 - 40.5	40.6 & Greater	
		Percent							
1990	**84**	**59.5**	**21.4**	**2.4**	**9.5**	**6.0**	**1.2**	—	**31.2**
1989	79	59.5	19.0	2.5	—	12.7	3.8	2.5	31.7
1988	79	55.6	20.3	2.5	6.3	8.9	5.1	1.3	31.8
1987	85	57.4	20.7	—	5.8	12.6	2.3	1.2	31.9

[1] Spacings based on row measurements in plots selected for objective yield samples.

SOYBEANS

Soybeans continue to be the third leading field crop, based on value of production, in Michigan agriculture. The 1990 crop was valued at over $249 million. Favorable weather enabled growers to harvest a record yield of 38 bushels per acre. The previous record was 36 bushels per acre set in 1987 and matched in 1989. Michigan continues to move up in soybean production and now ranks eleventh among states with 2.3 percent of the U.S. production. Saginaw, Lenawee, and Monroe are traditionally the top counties in soybean production.

Soybeans are the most important U.S. oilseed. Soybean oil is used in cooking oil, margarine, paints, varnishes, adhesives, and many other products. Soybean meal is a primary protein source in livestock feed. One 60 pound bushel normally yields about 11 pounds of oil and 47 pounds of meal.

Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**1,140**	**38.0**	**43,320**
1989	1,080	36.0	38,880
1988	1,210	29.0	35,090
1987	1,090	36.0	39,240
1986	930	31.0	28,830

Soybean Stocks by Quarter

CROP YEAR	December 1[1]		March 1[2]		June 1		September 1	
	On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm
	1,000 Bushels							
1990	**13,000**	**14,425**	**8,500**	**9,533**				
1989	11,500	12,951	8,000	6,002	2,800	3,663	1,000	1,243
1988	10,500	10,657	6,000	7,742	3,000	2,604	700	980
1987	11,000	13,844	7,500	7,092	3,000	3,237	1,500	1,484
1986	11,500	10,654	6,500	7,500	4,000	6,004	1,500	3,552

[1] Prior to 1986 January 1.

[2] Prior to 1986 April 1.

SUGARBEETS

The sugarbeet industry in Michigan continues to grow as record production levels for the state pushed it ahead of North Dakota as the fourth largest producing state. Accounting for about 12 percent of the national output, this year's bumper crop was the result of excellent weather conditions during the growing season. Wet weather toward the end of harvest caused some beets to be dug under muddy conditions, but did not significantly affect abandonment. The 1989 sugarbeet crop was worth about $107 million to Michigan farmers. Tuscola, Huron and Bay remain the three largest producing counties.

Sugarbeet acreage is contracted to processing plants which refine the beets into sucrose. In the United States, sugarcane and sugarbeet production are about the same.

Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Tons*	*1,000 Tons*
1990	**157**	**20.8**	**3,266**
1989	150	17.1	2,565
1988	145	16.5	2,393
1987	142	20.5	2,911
1986	110	20.8	2,288

DRY BEANS

Michigan dry bean producers continue to lead the nation in total dry bean production for 1990. Total production represented about 17 percent of the U.S. crop. Production from their nearest competitor, North Dakota, fell more than 400 thousand hundredweight short of Michigan's bountiful dry bean harvest. Ideal growing conditions during the most critical periods of plant development resulted in a record yield of 1,650 cwt per acre which was well above the national average. A mid-September frost did little damage to the crop and harvest completion was a little ahead of normal, despite wet weather near the end of the season.

Michigan also leads the country in Navy bean production accounting for about 54 percent of the national total. The fertile soils of the Bay-Thumb area and Saginaw Valley are particularly well suited for growing dry beans. Michigan dry beans are available world-wide and are especially popular in the United Kingdom. They are and will continue to be an important and valuable commodity to Michigan agriculture.

Dry Bean Stocks in Commercial Elevators

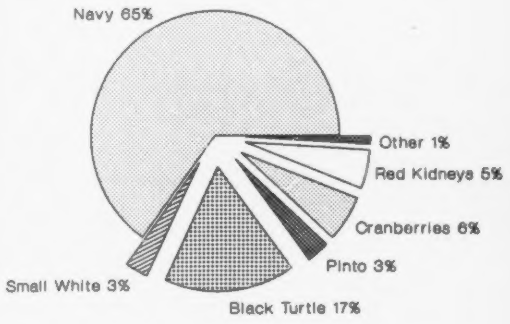
YEAR AND MONTH	Navy	Other Than Navy	Total
		1,000 Cwt.	
December 31			
1990	**2,400**	**750**	**3,150**
1989	2,100	400	2,500
1988	2,400	200	2,600
1987	3,000	550	3,550
1986	1,200	300	1,500
August 31			
1990	**125**	**25**	**150**
1989	325	25	350
1988	1,375	75	1,450
1987	270	80	350
1986	520	80	600

Dry Bean Acreage, Yield, Production

KIND	Year	Planted Acres	Harvested Acres	Yield per Acre	Production
		1,000	*1,000*	*Pounds*	*1,000 Cwt.*
Navy	**1990**	**235.0**	**223.0**	**1,590**	**3,545**
	1989	230.0	203.0	1,500	3,045
	1988	205.0	140.0	1,240	1,736
	1987	360.0	315.0	1,310	4,125
All Red Kidney	**1990**	**20.0**	**18.0**	**1,720**	**310**
	1989	17.5	15.0	1,470	220
	1988	17.0	14.0	1,300	182
	1987	32.0	31.0	1,900	370
Lt. Red Kidney[1]	**1990**	**11.0**	**10.0**	**1,600**	**160**
Dk. Red Kidney[1]	**1990**	**9.0**	**8.0**	**1,880**	**150**
Cranberries	**1990**	**18.0**	**17.0**	**1,880**	**320**
	1989	11.0	9.5	1,740	165
	1988	12.0	8.0	1,380	110
	1987	20.0	16.0	1,280	205
Pinto	**1990**	**10.0**	**9.0**	**1,670**	**150**
	1989	3.0	2.5	1,600	40
	1988	1.8	1.0	1,400	14
	1987	13.0	11.0	1,150	126
Black Turtle	**1990**	**54.0**	**51.0**	**1,780**	**910**
	1989	28.0	26.0	1,420	370
	1988	1.3	1.0	1,600	16
	1987	10.0	9.0	1,440	130
Small White	**1990**	**9.0**	**8.0**	**1,880**	**150**
	1989	9.0	8.0	1,500	120
	1988	5.0	4.3	1,400	60
	1987	9.5	9.0	1,430	129
Others	**1990**	**4.0**	**4.0**	**1,500**	**60**
	1989	1.5	1.0	1,500	15
	1988	2.9	1.7	1,410	24
	1987	5.5	4.0	1,250	50
Total	**1990**	**350.0**	**330.0**	**1,650**	**5,445**
	1989	300.0	265.0	1,500	3,975
	1988	245.0	170.0	1,260	2,142
	1987	450.0	395.0	1,300	5,135

[1] Estimates started in 1990.

Dry Bean Production
Percent by Class



Monthly Farm Marketings

Corn

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
October	**10**	13	10	8	7
November	**18**	14	19	14	20
December	**15**	12	7	17	24
January	**20**	11	11	12	17
February	**10**	7	8	10	4
March	**8**	7	6	10	3
April	**6**	5	8	6	4
May	**4**	6	4	5	6
June	**3**	8	8	5	4
July	**2**	7	7	4	4
August	**2**	5	6	3	3
September	**2**	5	6	6	4

Soybeans

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
September	**3**	3	3	2	3
October	**27**	24	24	18	22
November	**17**	21	26	20	16
December	**10**	18	9	12	18
January	**13**	10	13	15	11
February	**6**	4	5	6	5
March	**7**	6	6	7	7
April	**5**	3	5	5	6
May	**4**	4	4	5	4
June	**3**	4	3	4	4
July	**3**	2	1	3	2
August	**2**	1	1	3	2

Dry Beans

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
September	**15**	15	3	7	14
October	**34**	26	29	26	23
November	**10**	11	15	24	11
December	**7**	4	9	21	11
January	**10**	7	7	10	11
February	**8**	7	5	4	7
March	**5**	9	4	2	3
April	**2**	3	7	1	4
May	**4**	7	6	2	3
June	**2**	3	5	1	5
July	**2**	6	7	1	4
August	**1**	2	3	1	4

Wheat

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
July	**34**	41	44	47	52
August	**36**	20	19	21	16
September	**7**	12	19	4	9
October	**4**	5	3	5	6
November	**3**	3	3	3	6
December	**4**	6	3	3	3
January	**4**	6	3	5	2
February	**3**	2	2	2	2
March	**2**	2	1	2	1
April	**1**	1	1	2	1
May	**1**	1	1	3	1
June	**1**	1	1	3	1

Oats

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
July	**7**	17	24	7	12
August	**44**	32	30	37	51
September	**12**	18	12	4	5
October	**5**	3	3	3	3
November	**2**	2	3	2	6
December	**4**	2	3	8	2
January	**7**	5	6	10	7
February	**3**	5	5	10	7
March	**4**	4	4	7	7
April	**6**	6	4	4	5
May	**4**	2	4	4	6
June	**2**	4	2	4	3

Hay

MONTH	CROP YEAR				
	1989	1988	1987	1986	1985
	Percent				
June	**11**	17	15	14	17
July	**11**	16	12	14	12
August	**7**	13	10	6	8
September	**4**	9	5	5	4
October	**5**	7	6	5	4
November	**14**	7	10	5	7
December	**16**	7	9	11	9
January	**8**	7	8	10	8
February	**6**	6	10	10	6
March	**8**	5	7	9	10
April	**6**	4	6	8	9
May	**4**	2	3	3	7

WHEAT, OATS, BARLEY and RYE

All small grain crops matured slower than normal in 1990, but still had normal yields at harvest time. Season average prices for all small grain crops were down from last year, with winter wheat and barley showing the sharpest decline of about $1.20 per bushel. **Winter wheat** yields averaged 55 bushels per acre, up 2 bushels from 1989. Wheat yields reached the highest level since 1985, which was 60 bushels per acre. Growers harvested 750,000 acres of wheat, up 110,000 acres from the previous year.

Total **oat** production was slightly over 13 million bushels, which is the lowest output (with the exception of the drought year of 1988) since 1874. The average yield of 58 bushels per acre was down 9 bushels from a year earlier. Farmers harvested 225,000 acres for grain, which is the lowest (with the exception of the 1988 drought year) since 1867. In 1990, oat growers planted less acreage due to the lower prices and marginal useage. **Barley** production was up 11 percent from 1989. Yields averaged 60 bushels per acre, up 2 bushels from the previous year. **Rye** yields average 29 bushels per acre from 20,000 acres. These two factors combined to produce a crop that was 30 percent below 1989.

Wheat grown in Michigan is virtually all marketed as a food grain. While large quantities of oats are also sold, the majority is used on farms as livestock feed. Some barley is also used as feed although most is sold for malting. Rye is grown primarily as a winter cover crop.

Wheat Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**750**	**55**	**41,250**
1989	640	53	33,920
1988	620	42	26,040
1987	400	48	19,200
1986	680	45	30,600

Oats Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**225**	**58**	**13,050**
1989	300	67	20,100
1988	200	30	6,000
1987	300	57	17,100
1986	270	63	17,010

Barley Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**43**	**60**	**2,580**
1989	40	58	2,320
1988	38	32	1,216
1987	50	55	2,750
1986	55	59	3,245

Rye Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Bushels*	*1,000 Bushels*
1990	**20**	**29**	**580**
1989	25	33	825
1988	25	26	650
1987	20	32	640
1986	23	31	713

Small Grain Stocks by Quarter[1]

CROP	Crop Year	September 1		December 1		March 1		June 1	
		On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm	On Farm	Off Farm
		1,000 Bushels							
WHEAT	**1990**	**6,500**	**25,062**	**4,500**	**17,627**	**3,100**	**13,026**		
	1989	5,000	21,497	1,500	11,477	800	8,056	200	4,398
	1988	4,300	16,219	3,200	12,146	1,300	10,200	500	4,762
	1987	4,000	16,895	1,800	12,968	1,300	8,739	1,200	5,111
	1986	3,267	20,668	2,300	15,557	1,600	13,044	900	10,084
OATS	**1990**	**7,000**	**4,899**	**5,000**	**4,103**	**3,200**	**2,420**		
	1989	[2]	[2]	[2]	[2]	4,500[3]	4,183[3]	2,500	3,566
	1988	[2]	[2]	[2]	[2]	[2]	[2]	1,400	1,435
	1987	[2]	[2]	[2]	[2]	[2]	[2]	1,700	1,361
	1986	[2]	[2]	[2]	[2]	[2]	[2]	2,100	1,038

[1] Includes interior mills, elevators and warehouses, cereal food processing plants, census merchant mills, terminal and C.C.C.-bins.

[2] Effective 1986 only June 1 estimates will be made.

[3] Effective March 1990 Quarterly Estimates reinstated.

POTATOES

Michigan potato production during 1990 rose twenty six percent from last year's crop. Annual production consists of both summer and fall seasonal groups with the fall crop accounting for 76 percent of total production. Cool wet weather throughout much of the growing season was conducive to potato growth and development. Adequate moisture supplies enabled the crop to produce a record yield. Fall rains hampered harvest, but Michigan farmers were able to dig their crop. Consequently, acreage abandonment was generally low.

Michigan remained tenth among states in potato production for 1990. The majority of Michigan potatoes are white and are sold for fresh table use or processed for potato chips. The remainder are virtually all russets which are sold on the fresh market or used for french fries and other frozen products. Montcalm, Bay and Presque Isle counties continue to lead the state in potato acreage.

Total Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Cwt.*	*1,000 Cwt.*
1990	44.5	272	12,115
1989	40.0	241	9,650
1988	43.0	220	9,440
1987	46.8	254	11,880
1986	41.5	268	11,120

Fall Potatoes Top Four Varieties Planted

Variety	Percent
Russet Burbank	16.4
Atlantic	14.8
Onoway	11.5
Norkotah	9.2

Production and Disposition

SEASON	Year	Production	Total Used for Seed[1]	Used on Farm Where Grown: For Seed, Feed and Household Use	Used on Farm Where Grown: Shrink & Loss	Sold
		1,000 Cwt.				
SUMMER	**1990**	**2,875**	[2]	[2]	[2]	[2]
	1989	2,300	252	27	115	2,158
	1988	1,620	215	47	93	1,480
	1987	2,160	226	69	143	1,948
	1986	1,495	220	33	43	1,419
FALL	**1990**	**9,240**	[2]	[2]	[2]	[2]
	1989	7,350	700	150	590	6,610
	1988	7,820	620	240	740	6,840
	1987	9,720	702	241	1,137	8,342
	1986	9,625	703	222	1,040	8,363
TOTAL	**1990**	**12,115**	[2]	[2]	[2]	[2]
	1989	9,650	952	177	705	8,768
	1988	9,440	835	287	833	8,320
	1987	11,800	928	310	1,280	10,290
	1986	11,120	923	255	1,083	9,782

[1] Includes seed purchased and seed used on farms where grown.

[2] Not available at publication time.

Fall Potato Stocks

CROP YEAR	December 1	January 1	February 1	March 1	April 1	May 1
			1,000 Cwt.			
1990	**5,000**	**4,000**	**3,000**	**2,000**	**1,300**	**500**
1989	4,000	3,200	2,200	1,600	800	400
1988	4,600	3,500	2,400	1,700	900	300
1987	5,500	4,300	3,200	2,300	1,300	400
1986	6,000	5,100	4,100	3,000	1,800	600

HAY

Hay continues to be Michigan's second leading crop in value of production during 1990. The 1990 hay crop was valued at nearly $339 million, down 6 percent from 1989. Harvest acreage, 1.45 million, was down 100,000 acres from last season. Excellent growing conditions during the year allowed most farmers to harvest hay cuttings ahead of normal. Total tonnage harvested in 1990 was up 2.5 percent, as sharply higher yields offset the reduced acreage. Yields set a new record at 3.68 tons per acre, up nearly 10 percent from the previous record set last year at 3.36 tons per acre. Increased production and reduced demand saw hay prices fall for the second year in a row to an average of $63.50 per ton. Prices still averaged above the level of most recent years (with the exception of 1988) as the supply of good quality hay remained fairly tight.

Michigan placed tenth among all states in hay produced in 1990. Production exceeded 5.3 million tons. Alfalfa accounted for over 90 percent of the total hay crop.

Acreage, Yield, Production

YEAR	Acres Harvested	Yield per Acre	Production
	1,000	*Tons*	*1,000 Tons*
1990	**1,450**	**3.68**	**5,335**
1989	1,550	3.36	5,205
1988	1,900	2.22	4,220
1987	1,400	2.92	4,090
1986	1,700	3.24	5,743

Production by Kinds

CROP YEAR	Total	Alfalfa and Alfalfa Mixtures		All Other Kinds	
		Acres	Production	Acres	Production
	1,000 Tons	*1,000*	*1,000 Tons*	*1,000*	*1,000 Tons*
1990	**5,335**	**1,250**	**4,875**	**200**	**460**
1989	5,205	1,300	4,680	250	525
1988	4,220	1,300	3,380	600	840
1987	4,090	1,100	3,520	300	570
1986	5,743	1,400	5,040	370	703

Hay Stocks on Farms

CROP YEAR	December 1	May 1
	1,000 Tons	
1990	**3,041**	**1,041**
1989	2,811	549
1988	2,405	532
1987	2,236	570
1986	3,331	861

SPEARMINT

Michigan's 1990 spearmint crop totaled 66,000 pounds of oil with a value of $1,162,000. With favorable growing conditions in 1990, harvested acreage increased 16 percent from the 1989 crop.

Most Michigan spearmint goes to processors which produce oil to be further refined for use in such products as gum, medicine, soap, and toothpaste. Fresh mint leaves are used in restaurants for garnishes. The major producing area is central Lower Michigan. Michigan ranks sixth nationwide in spearmint production.

Acreage, Yield, Production

YEAR	Acres Harvested	Production—Oil	
		Per Acre	Total
		Pounds	*1,000 Pounds*
1990	**2,200**	**30**	**66**
1989	1,900	32	61
1988	1,500	24	36
1987	1,800	29	52
1986	2,800	31	87

FRUIT

General Information

Michigan is one of the nation's major fruit producing states, largely because of Lake Michigan's moderating influence on the weather. Cold air passing over the unfrozen lake in winter is warmed, while hot air passing over in the summer is cooled. This "lake effect" also helps delay fruit tree bloom in the spring, which lessens the possibility of freeze damage. In addition, the dry arctic winter air picks up substantial amounts of moisture as it moves over the unfrozen lake, which is deposited as "lake effect" snow, providing moisture for the fruit trees as well as insulating their root systems.

The 1990 growing season started with unseasonably warm temperatures the last week of April. Temperatures in the low eighties were reported in Traverse City and across the rest of the state accelerating fruit development. The first week of May brought below normal temperatures in the twenties, damaging fruit crops, especially sweet cherries in the northwest. The rest of May was unseasonably cool, wet, and windy, creating poor pollinating conditions, retarded growth, cracked fruit and the occurrence of many diseases and viruses. Although rainfall was adequate for most fruit growing areas, the southwest experienced inadequate moisture for most of June. As a result, production for all fruit, except grapes, declined sharply from the levels attained in 1989.

Total production of the seven Michigan fruit crops for which official estimates are available decreased in 1990 from last season's "average" harvest. Production of apples, tart cherries, sweet cherries, grapes, peaches, pears, prunes and plums fell 20 percent to 1.09 billion pounds. The grape harvest posted the only gain, up 7 percent from 1989.

Trees, Acres, Production and Value

FRUIT[1]	YEAR	Trees of Bearing Age		Production		Price Received	Value of Production
		Number	Acres	Total	Utilized		
		1,000		*Million Pounds*		*Dollars per Cwt.*	*1,000 Dollars*
APPLES[2]	**1990**	**5,500**	**52.1**	**750**	**750**	**11.10**	**83,250**
	1989	5,350	51.9	950	950	8.20	78,080
	1988	5,100	51.0	830	830	8.80	72,960
	1987	4,800	49.5	1,050	1,050	7.60	79,860
	1986	4,450	47.3	700	700	9.30	65,075
TART CHERRIES	**1990**	**3,450**	**32.9**	**160**	**160**	**18.50**	**29,520**
	1989	3,500	33.3	180	170	14.90	25,385
	1988	3,500	33.3	180	180	18.30	32,859
	1987	3,600	34.0	265	225	7.50	16,890
	1986	3,500	33.3	170	165	19.80	32,751
SWEET CHERRIES	**1990**	**860**	**9.9**	**32**	**27**	**25.60**	**6,913**
	1989	840	9.7	50	50	23.40	11,705
	1988	810	9.4	56	56	32.85	18,395
	1987	780	9.1	64	64	28.80	18,436
	1986	740	8.6	40	40	28.80	11,520
PEACHES	**1990**	**975**	**8.0**	**45**	**45**	**21.00**	**9,447**
	1989	950	7.9	55	55	19.10	10,490
	1988	925	7.7	45	45	17.80	8,028
	1987	875	7.3	60	59	16.10	9,526
	1986	790	6.6	50	50	17.70	8,864

Trees, Acres, Production and Value (Continued)

FRUIT	YEAR	Trees of Bearing Age		Production		Price Received	Value of Production
		Number	Acres	Total	Utilized		
		1,000		*Tons*		*Dollars per Ton*	*1,000 Dollars*
GRAPES[3]	**1990**	**5,100**	**11.0**	**46,000**	**46,000**	**291**	**13,372**
	1989	5,100	11.0	43,000	43,000	265	11,415
	1988	5,200	11.1	53,000	53,000	256	13,548
	1987	5,300	11.3	60,000	60,000	260	15,609
	1986	5,400	11.5	32,000	32,000	247	7,916
PEARS	**1990**	**140**	**1.4**	**2,500**	**2,500**	**267**	**668**
	1989	145	1.5	8,000	8,000	256	2,047
	1988	146	1.5	6,000	6,000	241	1,445
	1987	150	1.5	5,000	5,000	217	1,083
	1986	155	1.6	10,000	10,000	227	2,270
PRUNES AND PLUMS	**1990**	**390**	**3.7**	**6,000**	**6,000**	**296**	**1,778**
	1989	375	3.6	13,000	13,000	175	2,281
	1988	365	3.5	11,000	11,000	198	2,173
	1987	345	3.3	14,000	12,000	135	1,624
	1986	335	3.2	11,000	11,000	243	2,668

[1] Estimates for 1982-87 may have been revised during the 1987 Census of Agriculture review.

[2] Commercial.

[3] Vines of bearing age.

Fruit Total Acreage, Production and Value[1]

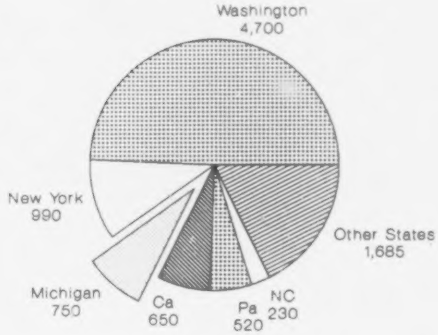
YEAR	Acres of Bearing Age	Production		Value of Utilized Production	
		Total	Utilized	Average	Total
		Million Pounds		*Dollars per Cwt.*	*1,000 Dollars*
1990	**119,000**	**1,096**	**1,091**	**12.77**	**139,268**
1989	118,900	1,363	1,353	10.45	141,403
1988	117,500	1,251	1,251	11.94	149,408
1987	116,000	1,597	1,552	9.22	143,028
1986	112,100	1,066	1,061	12.35	131,064

[1] Includes apples, peaches, tart cherries, sweet cherries, pears, prunes-plums, and grapes.

APPLES

Apple production, at 750 million pounds, was 21 percent below last year's crop and ranked Michigan third in the nation behind perennial leader Washington and New York. A freeze in early May and poor pollination due to cold, rainy weather the rest of May and part of June reduced the crop's potential. Price per pound was 38 percent higher than last year and in line with the higher national price. The majority of the state's applies are processed, primarily as juice and cider.

1990 U.S. Apple Production
(Million lbs.)



Trees, Production and Value[1]

YEAR	Trees of Bearing Age	Total Production	Value of Production
	1,000	*Million Pounds*	*1,000 Dollars*
1990	**5,500**	**750**	**83,250**
1989	5,350	950	78,080
1988	5,100	830	72,960
1987	4,800	1,050	79,860
1986	4,450	700	65,075

[1] Commercial.

Production, Utilization and Price

YEAR	Total Production	Fresh Market		Processing		Total Utilization	
		Quantity	Price per Pound	Quantity	Price per Pound	Quantity	Price per Pound
	Million Pounds	*Million Pounds*	*Cents*	*Million Pounds*	*Cents*	*Million Pounds*	*Cents*
1990	**750**					**750**	**11.10**
1989	950	320	11.80	630	6.35	950	8.20
1988	830	230	13.20	600	7.05	830	8.80
1987	1,050	390	11.00	660	5.55	1,050	7.60
1986	700	225	15.20	475	6.45	700	9.30

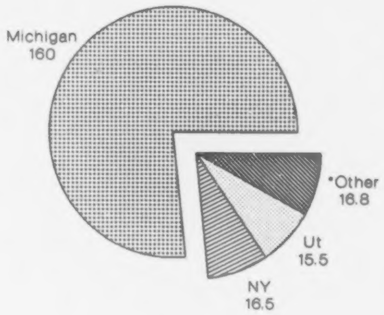
Processing Apple Utilization and Prices

YEAR	Canned		Frozen		Juice and Cider		Other	
	Quantity	Price per Pound	Quantity	Price per Pound	Quantity	Price per Pound	Quantity	Price per Pound
	Million Pounds	*Cents*	*Million Pounds*	*Cents*	*Million Pounds*	*Cents*	*Million Pounds*	*Cents*
1990								
1989	217	7.40	140	8.80	270	4.30	3	5.70
1988	200	8.20	120	9.20	270	5.30	10	5.80
1987	195	6.65	125	7.50	330	4.20	10	4.10
1986	140	6.90	110	8.40	210	5.20	15	5.50

TART CHERRIES

The 1990 tart cherry crop, set at 160 million pounds, was down 11 percent from the 1989 level of 180 million pounds with utilized production down only 6 percent. Warm weather in late April with a cold snap in early May severely reduced the potential of the crop. Cold, rainy weather during the critical pollinating period further reduced the chances for a good crop and increased the occurrence of disease, especially necrotic ring spot virus. Moisture levels throughout the growing areas remained adequate to surplus for the growing season. Michigan leads the nation in tart cherry production, accounting for 75 percent of the U.S. output. Bearing tart cherry trees have decreased slightly from the 1989 level to 3.45 million trees.

1990 Tart Cherry Production
(Million lbs.)



•Or-7.5,Wi-4.8,Pa-3.5,Co-1.0

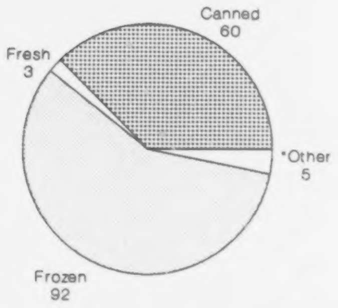
Trees, Acres, Production and Value

YEAR	Trees of Bearing Age		Production		Price Received	Value of Production
	Number	Acres	Total	Utilized		
	1,000	*1,000*	*Million Pounds*		*Dollars per Cwt.*	*1,000 Dollars*
1990	**3,450**	**32.9**	**160**	**160**	**18.50**	**29,520**
1989	3,500	33.3	180	170	14.90	25,385
1988	3,500	33.3	180	180	18.30	32,859
1987	3,600	34.0	265	225	7.50	16,890
1986	3,500	33.3	170	165	19.80	32,751

Production and Utilization

YEAR	Total Production	Utilized Production	Fresh Market	Utilization of Sales Processed		
				Canned	Frozen	Other
	Million Pounds					
1990	**160**	**160**	**3**	**60**	**92**	**5**
1989	180	170	3	37	122	8
1988	180	180	3	40	128	9
1987	265	225	5	55	150	15
1986	170	165	3	30	124	8

Michigan Tart Cherry
1990 Utilization (Mil. lbs.)



•Other uses - juice, wine & brined

Production by Region

REGION	1990	1989	1988	1987	1986
	Million Pounds				
Northwest	**70**	70	110	120	125
West Central	**55**	40	34	70	25
Southwest	**34**	69	35	73	19
Other	**1**	1	1	2	1
State Total	**160**	180	180	265	170

Tart Cherry Stocks in Cold Storage[1]

MONTH	East North Central Region[2]				48 States Total[3]			
	Crop Year							
	1990	1989	1988	1987	**1990**	1989	1988	1987
	1,000 Pounds							
July	**99,368**	99,779	160,368	179,534	**125,974**	133,398	193,383	215,247
August	**93,545**	139,696	161,789	175,164	**125,677**	183,231	197,763	214,443
September	**89,064**	132,403	147,976	158,295	**114,536**	175,797	181,652	192,483
October	**79,150**	121,862	136,946	151,410	**101,453**	163,078	169,313	183,884
November	**67,126**	111,865	120,440	144,844	**87,964**	153,536	148,360	177,470
December	**56,749**	102,019	111,619	119,119	**75,771**	138,828	137,489	147,957
January	**43,336**	82,938	97,765	107,674	**58,764**	114,152	115,313	134,000
February	**35,899**	73,061	84,591	94,583	**49,221**	100,430	104,357	118,867
March	**29,833**	62,012	71,475	82,360	**40,727**	85,813	88,877	103,044
April	**24,695**[4]	53,853	63,920	76,358	**34,038**[4]	75,422	79,925	95,173
May		49,056	55,893	68,999		63,979	69,800	85,787
June		38,216	45,912	60,897		54,456	56,514	77,417

[1] Juice cherries included in tart cherry stocks prior to January 1990.

[2] Michigan, Ohio, Illinois, Indiana, and Wisconsin.

[3] Excluding Alaska and Hawaii.

[4] Preliminary.

Sweet Cherries

Sweet cherry production dropped 36 percent in 1990 from the previous season's level. A freeze in early May hindered the potential of all fruit crops but was especially damaging to sweet cherries due to the severity of the frost in the northwest and the advanced condition of the crop. Nationally, Michigan remains fourth behind Washington, Oregon, and California with 13,500 tons of utilized production compared to the U.S. total of 132,350 tons.

Production and Utilization

YEAR	Total Production	Utilized Production	
		Fresh	Processed
	Million Pounds		
1990	**32**	**5**	**22**
1989	50	9	41
1988	56	11	45
1987	64	12	52
1986	40	8	32

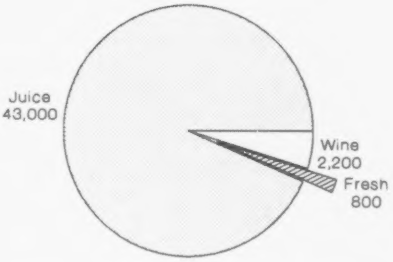
Grapes

Grape production rose 6 percent to 46,000 tons from last year's level and was the only fruit crop in the state that increased in production for 1990. The Concord crop, at 38,000 tons, also increased 6 percent. Ideal, dry, hot, and windy weather during pollination and adequate moisture during fruit growth helped this year's crop. Most of Michigan's crop is made into juice with a small percentage pressed into wine. Michigan ranked fifth in grape production behind California, Washington, New York, and Pennsylvania.

Grape Production

KIND & YEAR	Production
	Tons
Concord	
1990	**38,000**
1989	36,000
1988	45,500
1987	52,000
1986	28,000
Other Than Concord	
1990	**8,000**
1989	7,000
1988	7,500
1987	8,000
1986	4,000
Total	
1990	**46,000**
1989	43,000
1988	53,000
1987	60,000
1986	32,000

1990 Grape Utilization
(Tons)



Vines, Acres, Production and Value

YEAR	Vines of Bearing Age		Production		Price Received	Value of Production
	Number	Acres	Total	Utilized		
	1,000	*1,000*	*Tons*		*Dollars per Ton*	*1,000 Dollars*
1990	**5,100**	**11.0**	**46,000**	**46,000**	**291**	**13,372**
1989	5,100	11.0	43,000	43,000	265	11,415
1988	5,200	11.1	53,000	53,000	256	13,548
1987	5,300	11.3	60,000	60,000	260	15,609
1986	5,400	11.5	32,000	32,000	247	7,916

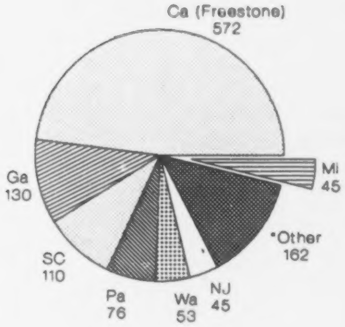
Production and Utilization

YEAR	Total Production	Utilized Production	Fresh Market Utilization	Processed Utilization	
				Juice	Wine
	Tons				
1990	**46,000**	**46,000**	**800**	**43,000**	**2,200**
1989	43,000	43,000	700	39,900	2,400
1988	53,000	53,000	1,000	49,000	3,000
1987	60,000	60,000	1,500	56,500	2,000
1986	32,000	32,000	1,000	29,500	1,500

Peaches

Peach output was 45 million pounds in 1990, down 18 percent from 1989 production. Price per pound rose almost 10 percent as expected due to the short supply, while total value of production decreased 10 percent from last year. Poor pollinating conditions reduced the crop's potential though good quality was reported. Michigan tied with New Jersey as the nation's sixth-largest producer of peaches in 1990.

1990 Peach Production
(Million lbs.)



*21 other states, excludes Ca Clingstone

Prunes and Plums

Prune and plum production in the state decreased 54 percent from last year's level. Price per ton increased 41 percent due to the short crop while total crop value decreased 22 percent. Michigan ranked fourth in production of prunes and plums in 1990.

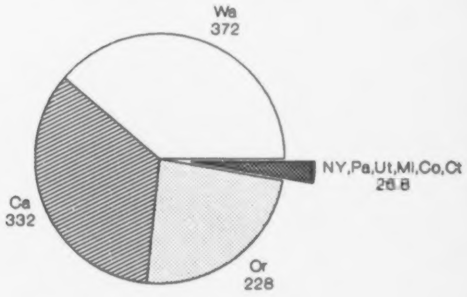
Production and Utilization

YEAR	Total Production	Utilized Production	
		Fresh	Processed
		Tons	
1990	**6,000**	**4,000**	**2,000**
1989	13,000	5,500	7,500
1988	11,000	5,000	6,000
1987	14,000	5,500	6,500
1986	11,000	5,500	5,500

Pears

Pear production in 1990 was down 69 percent from 1989, and the value of production was also down by 67 percent. Price per ton rose 4 percent and bearing acreage remained nearly the same. Michigan fell to tie with Colorado as the nation's seventh-largest producer of pears in 1990.

1990 U.S. Pear Production
(Thousand Tons)



*NY-14.8,Pa-3.3,Ut-2.8,Mi,Co,-2.5,Ct-1.1

VEGETABLES

Michigan vegetable growers produced nearly 15.5 million hundredweight (cwt.) of fresh and processing vegetables, excluding strawberries, in 1990. This represents nearly a 14 percent increase from 1989's crops and is 31 percent above the 1988 drought-stricken total. Predominately favorable weather conditions throughout the growing season provided above average conditions for vegetable production. An abundance of rainfall caused minor spring planting delays but overall, an abundance of moisture enabled this season's vegetable crops to produce high yields. Rainy but mild fall conditions enabled farmers to harvest their crops without any major problems. Harvested acreage at 118,900 for fresh market and processing vegetables is up nearly 7 percent from 1989. Value of production for all vegetables rose three percent from the previous year to total $137.4 million in 1990.

Most of the state's vegetables are grown in the southern half of the Lower Peninsula. Muck soils are primarily utilized for carrot, celery, lettuce and onion production. There are ample markets for both processing and fresh market vegetables. Processing vegetables are utilized by both in and out of state processors. Michigan remains ranked as the number one producer of cucumbers for pickles, and third in celery, asparagus, and carrot production. Michigan grown produce is shipped to major markets throughout the nation.

Total Vegetable Acreage, Production and Value[1]

YEAR	Acres Planted	Acres Harvested	Production	Value
			1,000 Cwt.	*1,000 Dollars*
1990	**124,600**	**118,900**	**15,448**	**137,356**
1989	120,800	111,400	13,607	133,645
1988	117,000	105,300	11,821	125,413
1987	115,300	107,200	13,164	117,537
1986	111,700	99,400	11,656	109,891

[1] Includes asparagus, carrots, cauliflower, celery, sweet corn, lettuce, onions, tomatoes, processing snap beans, processing green peas and cucumbers for pickles.

Dual Purpose Vegetable Disposition and Value[1]

CROP	Year	Fresh Market			Processing		
		Production	Price Received	Value of Production	Production	Price Received	Value of Production
		1,000 Cwt.	*Dollars per Cwt.*	*1,000 Dollars*	*Tons*	*Dollars per Ton*	*1,000 Dollars*
ASPARAGUS	**1990**	**51**	**67.70**	**3,453**	**10,400**	**1,080.00**	**11,232**
	1989	33	68.00	2,244	11,000	1,140.00	12,540
	1988	42	68.90	2,894	10,300	1,140.00	11,742
	1987	40	66.40	2,656	10,100	1,140.00	11,514
	1986	48	67.60	3,245	9,880	1,120.00	11,066
CARROTS	**1990**	**1,316**	**11.90**	**15,660**	**28,000**	**56.80**	**1,590**
	1989	978	12.50	12,225	34,380	53.00	1,822
	1988	1,139	17.20	19,591	28,480	60.60	1,726
	1987	1,150	10.40	11,960	38,760	56.80	2,202
	1986	494	16.10	7,953	21,560	57.30	1,235
STRAWBERRIES	**1990**	**106**	**54.10**	**5,735**	**1,850**	**800.00**	**1,480**
	1989	77	54.70	4,212	2,000	762.00	1,524
	1988	87	52.70	4,585	2,000	748.00	1,496
	1987	100	53.20	5,320	2,200	666.00	1,465
	1986	78	48.10	3,752	3,300	792.00	2,614

[1] Disposition data not publishable for cauliflower and celery.

Dual Purpose Vegetable Acreage, Production and Value

CROP	Year	Acres		Production		Price Received	Value of Production
		Planted	Harvested	Per Acre	Total		
				Cwt.	*1,000 Cwt.*	*Dollars per Cwt.*	*1,000 Dollars*
ASPARAGUS	**1990**	**24,000**[1]	**23,500**	**11**	**259**	**56.70**	**14,685**
	1989	24,000[1]	23,000	11	253	58.40	14,784
	1988	23,000[1]	22,500	11	248	59.00	14,636
	1987	23,000[1]	22,000	11	242	58.60	14,170
	1986	21,000[1]	20,500	12	246	58.20	14,311
CARROTS	**1990**	**7,000**	**6,700**	**280**	**1,876**	**9.20**	**17,250**
	1989	8,000	6,800	245	1,666	8.43	14,047
	1988	7,800	6,700	255	1,709	12.50	21,317
	1987	8,300	7,000	275	1,925	7.36	14,162
	1986	7,400	3,700	250	925	9.93	9,188
CAULIFLOWER	**1990**	**1,200**	**1,000**	**70**	**70**	**39.40**	**2,755**
	1989	1,300	1,200	60	72	33.00	2,378
	1988	1,200	1,100	55	61	39.00	2,382
	1987	1,600	1,200	60	72	28.80	2,074
	1986	1,800	700	55	39	39.50	1,539
CELERY	**1990**	**3,200**	**3,000**	**430**	**1,290**	**9.75**	**12,575**
	1989	3,200	2,800	380	1,064	13.30	14,103
	1988	3,200	3,100	380	1,178	13.70	16,142
	1987	3,400	3,100	370	1,147	11.50	13,142
	1986	3,300	2,600	400	1,040	14.00	14,521
STRAWBERRIES	**1990**	**2,400**	**2,200**	**65**	**143**	**50.50**	**7,215**
	1989	2,400	2,200	53	117	49.00	5,736
	1988	2,500	2,300	55	127	47.90	6,081
	1987	2,500	2,400	60	144	47.10	6,785
	1986	2,500	2,400	60	144	44.20	6,366

[1] Bearing acres only.

Processing Vegetable Acreage, Production and Value[1]

CROP	Year	Acres		Production		Price Received	Value of Production
		Planted	Harvested	Per Acre	Total		
				Tons		*Dollars Tons*	*1,000 Dollars*
SNAP BEANS	**1990**	**27,500**	**26,500**	**2.90**	**76,850**	**171.00**	**13,141**
	1989	25,000	21,500	2.90	62,350	166.00	10,350
	1988	23,000	21,000	1.80	37,800	175.00	6,615
	1987	20,000	19,500	2.20	42,900	149.00	6,392
	1986	18,000	17,600	2.40	42,240	143.00	6,040
CUCUMBERS FOR PICKLES	**1990**	**25,000**	**24,000**	**5.90**	**141,600**	**171.00**	**24,214**
	1989	25,500	24,500	6.00	147,000	168.00	24,696
	1988	25,000	23,000	5.50	126,500	156.00	19,734
	1987	25,000	24,000	6.70	160,800	139.00	22,351
	1986	25,000	24,000	5.80	139,200	146.00	20,323
TOMATOES	**1990**	**5,900**	**5,500**	**29.50**	**162,250**	**76.30**	**12,380**
	1989	5,600	5,400	24.60	132,840	72.80	9,671
	1988	5,600	5,200	21.60	112,320	68.20	7,660
	1987	5,300	5,000	23.70	118,500	69.20	8,200
	1986	5,900	5,400	24.70	133,380	76.00	10,137

[1] Green peas and sweet corn not published to avoid disclosure of individual operations.

Fresh Market Vegetable Acreage, Production and Value

CROP	Year	Acres		Production		Price Received	Value of Production[1]
		Planted	Harvested	Per Acre	Total		
				Cwt.	*1,000 Cwt.*	*Dollars per Cwt.*	*1,000 Dollars*
SWEET CORN	**1990**	**14,000**	**12,500**	**63**	**788**	**14.30**	**11,268**
	1989	13,000	11,800	68	802	17.50	14,035
	1988	12,500	9,000	60	540	16.90	9,126
	1987	13,300	11,500	62	713	10.20	7,273
	1986	13,300	11,700	60	702	10.50	7,371
LETTUCE	**1990**	**1,000**	**900**	**230**	**207**	**22.30**	**4,616**
	1989	1,300	1,100	190	209	20.40	4,264
	1988	1,300	800	175	140	18.90	2,646
	1987	1,400	1,000	215	215	20.20	4,343
	1986	1,300	1,200	200	240	16.70	4,008
ONIONS	**1990**	**7,600**	**7,400**	**330**	**2,442**	**8.40**	**15,389**
	1989	8,200	7,900	280	2,212	10.70	17,773
	1988	8,500	8,000	250	2,000	11.00	16,962
	1987	8,000	7,600	250	1,900	12.70	18,898
	1986	8,000	5,700	290	1,653	13.00	14,989
TOMATOES	**1990**	**2,800**	**2,500**	**120**	**300**	**20.70**	**6,210**
	1989	2,800	2,500	100	250	25.20	6,300
	1988	3,100	2,400	85	204	34.00	6,936
	1987	3,300	2,800	90	252	20.30	5,116
	1986	3,400	3,000	95	285	21.90	6,242

[1] For onions — Value of Sales.

Pickle Stocks, October 1, United States

YEAR	From Current Year Crop			From Previous Year Crop		Total Stocks
	Salt Stock Including Dill	Fresh Pack	Refrigerated	Salt Stock Including Dill	Fresh Pack	
			Tons			
1990	**302,460**	**138,310**	**11,230**	**38,670**	**1,210**	**491,880**
1989	267,830	133,080	7,630	48,890	1,450	458,880
1988	278,030	127,870	5,210	46,860	3,140	461,110
1987	275,670	119,040	4,100	62,080	1,980	462,870
1986	322,150	123,080	7,530	67,540	2,540	522,840

Mushrooms

Michigan mushroom production decreased 14 percent during the fiscal year ending June 30, 1990. Despite the decline, Michigan retained the nation's number three ranking in mushroom production. This production includes the conventional button mushroom (Agaricus) and also the exotics (Shiitake, Oyster, and all other exotic varieties). The button mushrooms are grown in specially built mushroom houses where humidity and temperatures are carefully controlled year-round. The available square footage can be filled three or more times during the year to account for the total area in production. Michigan's specialty mushrooms are grown on both indoor and outdoor natural wood logs.

Area, Production and Value

YEAR	Total Area in Production	Production	Yield per Square Foot	Price per Pound	Value of Production
	1,000 Sq. Ft.	*1,000 Pounds*	*Pounds*	*Cents*	*1,000 Dollars*
1989-90	**4,010**	**19,408**	**4.84**	**102.0**	**19,756**
1988-89	4,498	22,512	5.00	91.8	20,675
1987-88	4,279	23,359	5.46	88.7	20,719
1986-87	4,400	20,306	4.62	87.3	17,728
1985-86	4,060	20,171	4.97	83.1	16,758

FLORICULTURE

Michigan placed sixth nationally in sales of floriculture products in 1990. California, Florida, New York, Texas and Ohio reported larger sales than Michigan. Reports from the 480 commercial growers surveyed indicated that the wholesale value of sales of all surveyed floriculture crops was $124 million in 1990, up 9 percent from last year. A commercial grower is defined as one who had $10,000 or more in gross sales of cut flowers, foliar and flowering plants, bedding plants or cut florist greens. Michigan continued to lead the nation in production of potted geraniums grown from seed with 13 million pots, and ranked second in production of cut gladioli at 37 million spikes, potted Easter lilies at 1.1 million pots and flats of bedding plants at 9.8 million flats. Flats of bedding plants were the industry's mainstay, accounting for 42 percent of total sales. Michigan had 25.8 million square feet of greenhouse cover in 1990, including both rigid and film plastic greenhouses. Only California and Florida have more covered growing area.

Nationally, the equivalent wholesale value of all sales of the 28 crops surveyed was $2.77 billion, up 10 percent from last year. The value of all sales at wholesale for cut flowers increased 4 percent from 1989 to $503 million in 1990. Potted flowering plants, valued at $673 million, increased 25 percent. Foliage plants increased 5 percent in value to $512 million. The value at wholesale of sales of bedding plants increased 8 percent to $971 million.

Area of Production and Average Value

PLANT	Production Area			Average Value of Production Area[1]		
	1990	1989	1988	**1990**	1989	1988
	1,000 Sq. Ft.			*Dollars per Sq. Ft.*		
FOLIAGE PLANTS						
All	**390**	350	340	**7.09**	7.71	6.38
BEDDING PLANTS						
Flowering & Foliar	**15,900**	15,800	15,400	**2.83**	2.60	2.39
Vegetable	**2,050**	1,965	1,985	**2.71**	2.56	2.41
Geraniums	**365**	260	222	**4.83**	4.47	3.53
POTTED PLANTS						
Chrysanthemums	**900**	1,185	1,185	**3.94**	3.67	3.26
Azaleas	**235**	265	230	**5.30**	4.84	5.06
Poinsettias	**4,350**	4,070	3,840	**2.23**	2.18	2.08
African Violets	**110**	90	70	**5.30**	5.89	7.31
Easter Lilies	**715**	675	635	**5.18**	5.01	4.61
Other Lilies	**55**	40	35	**6.56**	4.38	4.94
Hardy/Garden Mums	**1,625**	1,535	1,600	**1.05**	.90	.73
Geraniums (Cuttings)	**1,600**	1,650	1,650	**3.78**	3.44	3.32
Geraniums (Seed)	**2,600**	2,260	1,570	**3.30**	3.64	4.36
Other Flowering Plants	**945**	820	855	**3.78**	4.16	3.76
Other Flowering & Foliar Type Bedding Plants	**1,670**	1,370	1,455	**3.06**	3.17	2.85
Vegetable Type Bedding Plants	**95**	90	70	**2.85**	2.52	2.56
CUT FLOWERS:						
Chrysanthemums,						
Standard	**40**	40	60	**2.00**	2.10	2.05
Pompon	**255**	240	240	**1.59**	1.66	1.72
Roses,						
Hybrid Tea	**490**	500	505	**7.59**	7.39	6.78
Sweetheart	**160**	150	140	**6.25**	6.23	5.70
Other Cut Flowers	**9,060**	7,325	8,495	**.30**	.19	.21
	Acres			*Dollars per Acre*		
Gladioli	**1,260**	1,085	940	**4,293**	3,837	4,647

[1] Based on Value of Sales at Wholesale, except foliage which is based on Net Value of Sales.

Bedding Plant and Flower Production and Sales

CROP	YEAR	Producers with Sales Over $10,000	Sales		Percent of Sales at Wholesale	Wholesale Price	Value of Sales at Wholesale[1]
			Unit	Quantity			
		Number		*1,000*	*Percent*	*Dollars*	*1,000 Dollars*
BEDDING PLANTS:							
Flowering & Foliar	**1990**	**394**	**Flat**	**8,500**	**85**	**5.30**	**45,050**
	1989	384	Flat	7,890	83	5.20	41,028
	1988	395	Flat	7,500	87	4.90	36,750
Vegetable[2]	**1990**	**341**	**Flat**	**1,070**	**80**	**5.20**	**5,564**
	1989	356	Flat	985	79	5.10	5,024
	1988	356	Flat	975	82	4.90	4,776
Geraniums	**1990**	**100**	**Flat**	**215**	**74**	**8.20**	**1,763**
	1989	79	Flat	140	83	8.30	1,162
	1988	79	Flat	106	83	7.40	784
HANGING BASKETS:							
Flowering	**1990**	**395**	**Basket**	**1,800**	**79**	**5.50**	**9,900**
	1989	394	Basket	1,660	80	5.45	9,047
	1988	360	Basket	1,300	79	5.50	7,150
Foliage	**1990**	**127**	**Basket**	**240**	**83**	**4.55**	**1,092**
	1989	130	Basket	255	83	4.40	1,122
	1988	130	Basket	265	91	4.35	1,153
CUT FLOWERS:							
Chrysanthemums, Standard	**1990**	**18**	**Bloom**	**100**	**28**	**.80**	**80**
	1989	22	Bloom	105	37	.80	84
	1988	27	Bloom	145	50	.85	123
Pompon	**1990**	**35**	**Bunch**	**150**	**57**	**2.70**	**405**
	1989	38	Bunch	150	49	2.65	398
	1988	37	Bunch	150	51	2.75	413
Roses, Hybrid Tea	**1990**	**10**	**Bloom**	**5,720**	**99**	**.65**	**3,718**
	1989	7	Bloom	5,280	99	.70	3,696
	1988	7	Bloom	5,280	99	.60	3,426
Sweetheart	**1990**	**4**	**Bloom**	**2,500**	**100**	**.40**	**1,000**
	1989	5	Bloom	2,075	100	.45	934
	1988	4	Bloom	1,995	100	.40	798
Gladioli	**1990**	**16**	**Spike**	**37,300**	**99**	**.145**	**5,409**
	1989	14	Spike	33,300	100	.125	4,163
	1988	18	Spike	33,600	100	.13	4,368
Other Cut Flowers	**1990**	**62**	**—**	**—**	**93**	**—**	**2,680**
	1989	57	—	—	97	—	1,420
	1988	65	—	—	95	—	1,750

[1] Equivalent wholesale value of all sales.

[2] Does not include vegetable transplants grown for use in commercial vegetable production.

Foliage Plant Production and Sales

YEAR	Producers with Sales Over $10,000	Square Feet in Production	Net Value of Sales[1]	Sales at Wholesale
	Number	*1,000 Sq. Ft.*	*1,000 Dollars*	*Percent*
1990	**59**	**390**	**2,765**	**67**
1989	60	350	2,700	79
1988	70	340	2,170	71

[1] Gross value of sales less cost of plant material purchased from others.

Flower Production and Sales

CROP	YEAR	Producers with Sales Over $10,000	Sales				Percent of Sales at Wholesale	Wholesale Priced		Value of Sales at Wholesale[1]
			Unit	Quantity		Total				
				Less Than 5 Inch	5 Inch or More			Less Than 5 Inch	5 Inch or More	
		Number		*1,000*			*Percent*	*Dollars*		*1,000 Dollars*
POTTED PLANTS:										
Chrysanthemums	1990	67	Pot	165	850	1,015	92	1.40	3.90	3,546
	1989	74	Pot	150	1,090	1,240	93	1.35	3.80	4,345
	1988	85	Pot	155	950	1,105	94	1.30	3.85	3,859
Azaleas	1990	72	Pot	10	210	220	81	2.75	5.80	1,246
	1989	77	Pot	15	210	225	86	2.85	5.90	1,282
	1988	82	Pot	15	185	200	87	3.00	6.05	1,164
Poinsettias	1990	161	Pot	650	2,335	2,985	85	1.60	3.70	9,680
	1989	165	Pot	660	2,210	2,870	88	1.55	3.55	8,869
	1988	165	Pot	535	2,065	2,600	88	1.45	3.50	8,003
African Violets	1990	29	Pot	555	—	555	95	1.05	—	583
	1989	26	Pot	530	—	530	95	1.00	—	530
	1988	27	Pot	465	—	465	96	1.10	—	512
Easter Lilies	1990	87	Pot	—	1,090	1,090	96	—	3.40	3,706
	1989	95	Pot	—	1,040	1,040	95	—	3.25	3,380
	1988	98	Pot	—	900	900	95	—	3.25	2,925
Other Lilies	1990	41	Pot	—	85	85	89	—	4.25	361
	1989	32	Pot	—	50	50	77	—	3.50	175
	1988	30	Pot	—	50	50	55	—	3.45	173
Hardy/Garden Mums	1990	155	Pot	570	670	1,240	86	.75	1.90	1,701
	1989	135	Pot	710	475	1,185	88	.70	1.85	1,376
	1988	138	Pot	650	355	1,005	87	.65	2.10	1,168
Geraniums (Cuttings)	1990	285	Pot	3,400	535	3,935	58	1.30	3.05	6,052
	1989	288	Pot	4,000	290	4,290	56	1.20	3.00	5,670
	1988	291	Pot	3,900	265	4,165	60	1.20	3.00	5,475
Geraniums (Seed)	1990	195	Pot	12,950	70	13,020	88	.65	2.20	8,572
	1989	207	Pot	12,550	30	12,580	90	.65	2.10	8,221
	1988	212	Pot	10,425	30	10,455	93	.65	2.30	6,845
Other Flowering Plants	1990	119	Pot	465	860	1,325	89	1.40	3.40	3,575
	1989	120	Pot	560	800	1,360	88	1.30	3.35	3,408
	1988	169	Pot	630	725	1,355	88	1.25	3.35	3,216
Other Flowering & Foliar Type Bedding Plants	1990	168	Pot	4,200	670	4,870	89	.85	2.30	5,111
	1989	197	Pot	3,715	625	4,340	88	.80	2.20	4,347
	1988	215	Pot	3,500	665	4,165	87	.90	1.50	4,148
Vegetable Type Bedding Plants[2]	1990	89	Pot	285	55	340	61	.65	1.55	271
	1989	78	Pot	265	45	310	54	.60	1.50	227
	1988	60	Pot	250	20	270	65	.60	1.45	179

[1] Equivalent wholesale value of all sales.

[2] Does not include vegetable transplants grown for use in commercial vegetable production.

Growers and Growing Area

YEAR	Total Number of Growers	Glass Greenhouses	Fiberglass and other Rigid Greenhouses	Film Plastic (Single/ Double) Greenhouses	Total Greenhouse Cover	Shade and Temporary Cover	Total Covered Area	Open Ground
	Number	*1,000 Square Feet*						*Acres*
1990	480	4,600	2,700	18,500	25,800	130	25,930	1,600
1989	470	4,500	2,500	18,000	25,000	100	25,100	1,300
1988	470	4,500	3,000	16,500	24,000	150	24,150	1,300

LIVESTOCK AND POULTRY

General Information

Total livestock cash receipts, at $1.31 billion, were up 9 percent from a year earlier. Receipts from the 1990 meat animal marketings in Michigan totaled $519 million, up 10 percent from the previous year. Rising market prices for cattle and hogs and increased marketings of hogs and sheep led to higher receipts.

Cattle and calf cash receipts were down 1 percent. Cattle and calf liveweight marketed was down 8 percent thus cash receipts were buoyed entirely by improved prices received. Cattle prices averaged $63.20 per hundredweight (cwt.), $4.70 more than the previous year. Cow prices averaged $51.30 per cwt, $3.70 more than 1989, with monthly cow prices peaking in June at $53.60 per cwt. Steer and heifer prices, at $70.90, were up $3.90. Calf prices jumped $5.30, averaging $99.00 per cwt. The January 1, 1991 cattle inventory in Michigan was 1.225 million head, equalling 1990's inventory.

The December 1, 1990 hog inventory at 1.25 million head, 10,000 less than a year earlier. The breeding herd was 3 percent less than December 1989 and the market hog total was down fractionally. At $52.30 per cwt., hog prices were a whopping $10.80 more than the previous year, a 26 percent increase. Barrow and gilt prices jumped 24 percent from 1989. Total hog and pig liveweight marketed in 1990 was up fractionally, contributing to the 27 percent increase in cash receipts for swine.

Sheep and lamb receipts plummeted 17 percent. Sheep marketings (liveweight basis) increased 8 percent, offsetting losses in average prices received by farmers. Sheep prices were $16 per cwt, falling $5, while lamb prices fell $7, averaging $55 per cwt. The January 1, 1991 sheep and lamb inventory was valued at $8 million.

Cash receipts for eggs increased totaled $68 million and eggs averaged 58 cents per dozen. Turkey receipts rose 20 percent and broiler receipts fell 2 percent. Of the other livestock species, the value of 1990 honey production totaled $4.32 million. Michigan's 9,000 Angora goats were valued at $65 per head. Mohair from these goats accounted for $98,000.

TROUT

Michigan's 43 commercial trout operations sold 688,000 pounds of trout during the year ending August 31, 1990. Sales valued at $1.74 million placed Michigan 11th nationally and included sales of foodsize trout, stockers, fingerlings, and eggs. About 55 percent of total sales were foodsize trout, which are usually 12 inches or longer. Stockers (6 to 12 inches), fingerlings (2 to 6 inches), and eggs made up the remaining sales components. Operations contributing to the sales total include: (1) fish farms that sell eggs and live fish to other operations for stocking purposes, (2) fish farms that sell dressed fish to restaurants and markets, and (3) recreational operations that open their waters for fee fishing. The most common trout species in Michigan are rainbow, brown, and brook trout which are raised in both earthen ponds and cement runways.

Number, Sales, Value and Number of Operations

ITEM	Number of Head	Total Pounds Sold	Total Value of Sales	Average Value per Pound
	1,000		*1,000 Dollars*	*Dollars*
Foodsize[1]				
1990	**500**	**490**	**955**	**1.95**
1989	490	435	870	2.00
1988	494	400	860	2.15
Stockers[2]				
1990	**450**	**141**	**405**	**2.87**
1989	500	141	373	2.65
1988	554	171	428	2.50
Fingerlings[3]				
1990	**945**	**57**	**370**	**6.49**
1989	1,132	39	300	7.69
1988	[4]	[4]	[4]	[4]
	Number			
Number of Trout Operations				
1990	**46**			
1989	43			
1988	43			

[1] Foodsize are 12" or longer.

[2] Stockers are 6-12" long.

[3] Fingerlings are 2-6" long.

[4] Data not collected in 1988.

Honey

Honey production in Michigan totaled 8 million pounds in 1990, 12 percent more than the previous year. This estimate only includes honey taken by producers with 5 or more colonies in production. Michigan has many "hobby" producers with less than 5 colonies and this data is excluded from the state estimate. Honey from hobby hives is chiefly for home use and not sold commercially.

Bee colonies totaled 100,000 in 1990 for producers with 5 or more hives, 2,000 less than the previous year. Yield per colony averaged 80 pounds, 10 pounds more than 1989. Honey prices averaged 54 cents per pound, 2 cents less than a year ago. This price excludes government support payments and loans. Value of honey production totaled $4.32 million, 8 percent more than 1989. Leading honey production areas include the rich fruit growing region of western Michigan, the "Thumb" and several counties in southeastern Michigan. Nationally, Florida and California lead the nation in honey production while Michigan improved its ranking to 8th overall.

Honey Production and Value

YEAR	Colonies of Bees	Honey				
		Yield per Colony	Production	Average Price	Total Value	Stocks Dec. 15
	1,000	*Pounds*	*1,000 Pounds*	*Cents*	*1,000 Dollars*	*1,000 Pounds*
1990	**100**	**80**	**8,000**	**54**	**4,320**	**2,560**
1989	102	70	7,140	56	3,998	1,642
1988	95	73	6,935	53	3,676	1,456
1987	80	68	5,440	53	2,883	1,034

Mink

Mink pelt production in Michigan increased more than 22,900 in 1989 to 184,000 pelts. Michigan's national ranking increased from 9th to 8th with 4 percent of the U.S. total. Wisconsin led all states with nearly 1.2 million pelts produced in 1989 which accounted for 25 percent of U.S. production.

Standards are the most popular color class in Michigan, with 48 percent of pelts produced. Mahogany was second, accounting for 14 percent of the total. Ranch Wild, Demi-Buff, Violet and Pearl were the other leading color classes. For 1989, the top six classes accounted for 92 percent of the State's total pelts. With a 46 percent reduction in female mink bred to produce kits in 1990, Michigan pelt production is expected to fall steeply in 1990.

Commercial scale mink ranching goes back only a few decades in the United States. Before World War II, pelts were obtained from wild mink. These pelts varied widely because the animals differed in color, quality, and size from one geographical area to another. Also, wild mink were frequently trapped before they were prime. In contrast, modern mink ranching allows the harvest of fully prime pelts. Even more important, ranching permits controlled breeding and propagation of strains with desirable fur quality. More than half of Michigan mink are raised in the Upper Peninsula, which furnishes an ideal climate for healthy fur.

Pelt Production and Farms

ITEM	**1989**	1988	1987	1986	1985
	1,000 Pelts				
Pelt Production by Color Class:					
Standards	**87.9**	69.0	63.0	57.5	55.0
Ranch Wild . . .	**16.8**	17.7	13.5	19.2	18.6
Demi-Buff	**17.5**	14.8	15.5	19.3	20.2
Pastel	**5.6**	7.7	6.3	11.0	19.5
Violet	**12.0**	12.1	11.8	13.2	20.0
Pearl	**9.0**	8.9	8.3	8.7	13.0
White	**6.1**	5.0	6.3	7.3	7.3
Mahogany . . .	**26.5**	23.7	19.0	16.6	11.0
Other	**2.6**	2.2	2.3	1.7	1.9
Total	**184.0**	161.1	146.0	154.5	166.5
	1,000 Females				
Females Bred to Produce Kits in Next Year	**25.6**	47.0	44.0	53.5	40.4
Mink Farms Producing Pelts .	**54**	56	54	52	53

CATTLE AND CALVES

Michigan cattle inventory showed no change for the fourth year in a row. The January 1, 1991 cattle and calf inventory totaled 1,225,000 head. Although there was no change in total inventory, there was some shifting among classes. Beef cow numbers on January 1 were down 11 percent to 117,000 head. The January milk cow inventory, 343,000 head, was down 1,000 head from a year earlier. Milk replacement heifers were up 5 percent, while beef replacements were down 15 percent. The 1990 calf crop was 400,000 head, down 9 percent from 1989.

Cattle on full feed for slaughter market totaled 250,000 head, 30,000 more than a year ago. Steer numbers jumped 10 percent. Bulls were unchanged at 17,000 head. Calves on hand January 1 totaled 245,000 head, down 8 percent from the previous year. The January 1 Michigan cattle and calf inventory was valued at $864 million, climbing 13 percent over last January. Cash receipts from cattle and calf marketings fell 1 percent from 1989 while total liveweight marketed fell 8 percent.

Cattle on Feed for Slaughter

YEAR	January 1
	1,000 Head
1991	**250**
1990	220
1989	210
1988	200
1987	200

Number on Farms by Class, January 1

CLASS	**1991**	1990	1989	1988	1987
			1,000 Head		
Cows and Heifers that have Calved	**460**	475	470	488	520
Beef Cows	**117**	131	125	130	150
Milk Cows	**343**	344	345	358	370
Heifers, 500 pounds and over	**230**	220	230	233	278
For Beef Cow replacement	**29**	34	33	29	37
For Milk Cow replacement	**162**	154	157	161	187
Other Heifers	**39**	32	40	43	54
Steers, 500 pounds and over	**273**	248	238	203	210
Bulls, 500 pounds and over	**17**	17	17	16	17
Calves, less than 500 pounds	**245**	265	270	285	300
All Cattle and Calves	**1,225**	1,225	1,225	1,225	1,325

Number of Livestock Operations

CLASS	**1990**	1989	1988	1987	1986
Beef Cow[1]	**8,500**	8,500	9,000	9,500	10,000
Milk Cow[1]	**6,500**	6,500	7,000	7,000	8,000
Cattle[2]	**21,000**	22,000	24,000	26,000	28,000

[1] Included in number of cattle operations.

[2] Any place having one or more head on hand at any time during the year.

Cattle and Calves Production and Income

YEAR	Production[1]	Marketings[2]	Average Price per Cwt. Cattle	Average Price per Cwt. Calves	Value of Production	Cash Receipts[3]	Value of Home Consumption	Gross Income
	1,000 Pounds		*Dollars*		*1,000 Dollars*			
1990	**395,280**	**412,300**	**63.20**	**99.00**	**252,953**	**265,578**	**10,043**	**275,621**
1989	436,655	448,640	58.50	93.70	262,090	269,283	10,224	279,507
1988	440,635	450,810	56.10	85.40	252,155	258,869	14,347	273,216
1987	462,130	556,195	52.50	71.90	247,245	297,368	10,893	308,261
1986	466,085	529,460	44.50	55.00	208,730	238,955	11,229	250,184

[1] Adjustments made for changes in inventory and for inshipments.
[2] Excludes custom slaughter for use on farms where produced and interfarm sales within the state.
[3] Receipts from marketings and sale of farm slaughter.

Balance Sheet

YEAR	On Hand January 1, All Cattle and Calves	Calf Crop	Inshipments	Marketings[1] Cattle	Marketings[1] Calves	Farm Slaughter[2] Cattle and Calves	Deaths Cattle	Deaths Calves	On Hand Following January 1, All Cattle and Calves
	1,000 Head								
1990	**1,225**	**400**	**55**	**324**	**41**	**5**	**25**	**60**	**1,225**
1989	1,225	440	50	346	56	3	20	65	1,225
1988	1,225	450	55	355	61	4	25	60	1,225
1987	1,325	460	60	435	87	5	23	70	1,225
1986	1,410	500	60	430	104	6	28	77	1,325

[1] Includes custom slaughter and state outshipments, but excludes interfarm sales within Michigan.
[2] Excludes custom slaughter for farmers at commercial establishments.

Commercial Slaughter

YEAR OR MONTH	Cattle Head	Cattle Liveweight Per Head	Cattle Liveweight Total	Calves Head	Calves Liveweight Per Head	Calves Liveweight Total
	1,000	*Pounds*	*1,000 Pounds*	*1,000*	*Pounds*	*1,000 Pounds*
1990 January	**37.2**	**1,293**	**48,092**	**5.6**	**206**	**1,159**
February	**31.2**	**1,290**	**40,259**	**4.2**	**287**	**1,208**
March	**34.8**	**1,282**	**44,600**	**4.8**	**270**	**1,306**
April	**32.3**	**1,255**	**40,488**	**3.4**	**232**	**786**
May	**38.1**	**1,246**	**47,490**	**5.3**	**370**	**1,956**
June	**34.7**	**1,256**	**43,536**	**4.6**	**378**	**1,733**
July	**32.6**	**1,246**	**40,556**	**3.9**	**382**	**1,490**
August	—	—	—	—	—	—
September	—	—	—	—	—	—
October	—	—	—	**5.5**	**381**	**2,100**
November	—	—	—	**4.9**	**338**	**1,663**
December	—	—	—	**4.6**	**395**	**1,825**
YEAR 1990[1]	—	—	—	**55**	**333**	**18,281**
1989	403	1,276	513,570	63	362	22,899
1988	394	1,275	502,842	70	357	24,811
1987	391	1,256	491,635	81	326	26,532
1986	423	1,236	523,022	100	315	31,553

[1] Months may not add exactly to annual totals because of rounding.

Hogs and Pigs

Michigan hog inventories rise and fall with the production patterns of seasonal producers, many of whom farrow outdoors in the southwest and southcentral regions of the state. Not surprisingly, hog marketings are heaviest in the fall about six months after spring farrowings.

Though open-field farrowing is a big part of Michigan hog production, several other production methods are practiced throughout the state. Confined hog operations make a large, stable contribution to Michigan hog numbers each quarter. Strict feed pig operations, operations using a combination of indoor and outdoor farrow to finish methods, and contract hog arrangements make Michigan swine production unique.

Michigan ranks 12th nationally based on its December 1, 1990 inventory of 1.25 million hogs and pigs. The annual average price for hogs improved significantly over the previous year. Barrows and gilts averaged $53.30 per hundredweight (cwt.) for 1990, $10.40 more than 1989. Sow prices jumped $13.20, averaging $44.70 per cwt. The all hog price at $52.30 per cwt. showed a gain of $10.80. Cash receipts for 1990 totaled $249.8 million, up 26 percent from 1989.

Number of Hog Operations[1]

YEAR	December 1
1990	**6,000**
1989	6,500
1988	7,000
1987	7,000
1986	7,500

[1] Any place having one or more head on hand at any time during the year.

Commercial Hog Slaughter

YEAR OR MONTH		Head	Liveweight Per Head	Liveweight Total
		1,000	*Pounds*	*1,000 Pounds*
1990	**January**	**422.2**	**241**	**101,757**
	February	**384.7**	**241**	**92,538**
	March	**409.8**	**241**	**98,566**
	April	**367.6**	**242**	**88,961**
	May	**275.6**	**241**	**66,342**
	June	**242.8**	**238**	**57,819**
	July	**224.1**	**240**	**53,780**
	August	**284.9**	**242**	**68,837**
	September	**299.2**	**240**	**71,864**
	October	**312.5**	**241**	**75,407**
	November	**306.4**	**243**	**74,525**
	December	**306.1**	**244**	**74,829**
YEAR	**1990**[1]	**3,836**	**241**	**925,225**
	1989	4,875	240	1,168,141
	1988	4,918	238	1,168,088
	1987	4,527	236	1,069,718
	1986	4,625	237	1,095,979

[1] Months may not add exactly to annual totals because of rounding.

Hogs and Pigs Inventory

MONTH AND YEAR	Market Hogs and Pigs: Under 60 Lbs.	60-119 Lbs.	120-179 Lbs.	180 Lbs. and Over	Total Market	Breeding Stock	Total Hogs & Pigs
	1,000 Head						
March 1							
1991	**300**	**220**	**210**	**190**	**920**	**180**	**1,100**
1990	315	235	220	190	960	190	1,150
1989	310	230	215	175	930	170	1,100
1988	300	245	205	200	950	180	1,130
June 1							
1991							
1990	575	245	165	145	1,130	170	1,300
1989	550	225	175	145	1,095	175	1,270
1988	515	265	195	155	1,130	170	1,300
September 1							
1991							
1990	400	360	230	175	1,165	165	1,330
1989	390	360	220	170	1,140	160	1,300
1988	390	400	260	180	1,230	170	1,400
December 1							
1991							
1990	330	250	255	245	1,080	170	1,250
1989	390	235	240	220	1,085	175	1,260
1988	350	260	230	240	1,080	170	1,250

Sows Farrowed and Pig Crop, Spring

YEAR	December - February			March - May			Total December - May		
	Sows Farrowed	Pigs per Litter	Pig Crop	Sows Farrowed	Pigs per Litter	Pig Crop	Sows Farrowed	Pigs per Litter	Pig Crop
	1,000 Head	*Head*	*1,000 Head*		*Head*	*1,000 Head*		*Head*	*1,000 Head*
1991	**45**	**7.9**	**356**						
1990	47	8.1	381	89	7.8	694	136	7.9	1,075
1989	48	7.8	374	85	7.8	663	133	7.8	1,037
1988	45	8.0	360	75	7.9	593	120	7.9	953
1987	45	—	—	70	—	—	115	7.9	909
1986[1]	—	—	—	—	—	—	105	8.1	851

[1] Data not available quarterly.

Sows Farrowed and Pig Crop, Fall

YEAR	June - August			September - November			Total June - November		
	Sows Farrowed	Pigs per Litter	Pig Crop	Sows Farrowed	Pigs per Litter	Pig Crop	Sows Farrowed	Pigs per Litter	Pig Crop
	1,000 Head	*Head*	*1,000 Head*		*Head*	*1,000 Head*		*Head*	*1,000 Head*
1990	**74**	**7.6**	**566**	**52**	**8.1**	**421**	**126**	**7.9**	**987**
1989	75	7.8	581	60	7.8	468	135	7.8	1,049
1988	80	7.5	600	55	7.8	429	135	7.6	1,029
1987	80	—	—	60	—	—	140	7.8	1,093
1986[1]	—	—	—	—	—	—	130	7.6	992

[1] Data not available quarterly.

Balance Sheet

YEAR	Beginning Inventory	Pig Crop		Inshipments	Marketings[1]	Farm Slaughter[2]	Deaths	Number on Hand December 1
		Dec.-May	June-Nov.					
	1,000 Head							
1990	**1,260**	**1,075**	**987**	**38**	**2,014**	**6**	**90**	**1,250**
1989	1,250	1,037	1,049	34	2,014	6	90	1,260
1988	1,350	953	1,029	38	1,998	7	115	1,250
1987	1,250	909	1,092	49	1,853	7	90	1,350
1986	1,190	851	1,027	32	1,755	10	85	1,250

[1] Includes custom slaughter and state outshipments, but excludes interfarm sales within Michigan.
[2] Excludes custom slaughter for farmers at commercial establishments.

Hogs and Pigs Production and Income

YEAR	Production[1]	Marketings[2]	Average Price per Cwt.	Value of Production	Cash Receipts[3]	Value of Home Consumption	Gross Income
	1,000 Pounds		*Dollars*	*1,000 Dollars*			
1990	**480,809**	**475,966**	**52.30**	**251,359**	**249,825**	**2,259**	**252,084**
1989	471,985	475,392	41.50	195,988	197,907	1,195	199,102
1988	454,515	466,595	41.40	188,214	193,744	1,739	195,483
1987	434,290	422,795	50.00	217,557	212,560	2,100	214,660
1986	417,195	402,115	48.30	202,132	195,293	2,318	197,611

[1] Adjustments made for changes in inventory and for inshipments.
[2] Excludes custom slaughter for use on farms where produced and interfarm sales within the state.
[3] Receipts from marketings and sale of farm slaughter. Includes allowance for higher average price of outshipments of feeder pigs.

Sheep and Lambs

The January 1, 1991 sheep and lamb inventory of 115,000 head was down 6,000 head from the previous year. The stock sheep inventory, 85,000 head, was down 8 percent from last year. Sheep and lambs on feed totaled 30,000 head, up 1,000 from 1990. This was the highest number on feed since 1978. The 1989 Michigan lamb crop (lambs born October 1, 1988 — September 30, 1989) at 85,000 head was down 11 percent from the previous year.

Sheep cash receipts plummeted 17 percent in 1990. Increased sheep liveweight marketed partially offset losses in average prices received by farmers. Sheep prices averaged $16 per hundredweight (cwt.) in 1990, $5 less than 1989. Lamb prices fell $7 to an average of $55 per cwt. Meanwhile, average wool prices tumbled 47 percent to $.40 per pound. A 5 percent decrease in wool production to 756,000 pounds resulted in total wool receipts of $302,000, a 49 percent drop from the previous year.

Number on Farms by Class and Number of Operations, January 1

CLASS	**1991**	1990	1989	1988	1987
	1,000 Head				
STOCK SHEEP:					
Ewe Lambs	**12**	11	10	11	10
Ram and Wether Lambs	**2**	2	3	3	4
Ewes, 1 year plus	**68**	75	372	67	68
Rams and Wethers, 1 year plus	**3**	4	4	3	3
Sheep and Lambs on Feed	**30**	29	26	21	19
All Sheep and Lambs	**115**	121	115	105	108
Number of Sheep Operations[1]	**2,600**	2,600	2,500	2,500	2,700

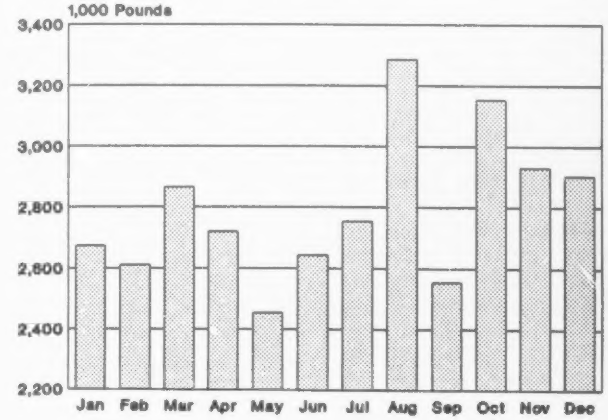
[1] Any place having one or more head on hand at any time during the year.

Commercial Sheep and Lamb Slaughter

YEAR OR MONTH		Head	Liveweight Per Head	Liveweight Total
		1,000	*Pounds*	*1,000 Pounds*
1990	**January**	**22.7**	**118**	**2,673**
	February	**22.0**	**118**	**2,610**
	March	**24.1**	**119**	**2,865**
	April	**23.6**	**115**	**2,719**
	May	**21.1**	**116**	**2,453**
	June	**23.2**	**114**	**2,642**
	July	**23.9**	**115**	**2,754**
	August	**28.6**	**115**	**3,285**
	September	**22.7**	**113**	**2,554**
	October	**27.6**	**114**	**3,152**
	November	**25.5**	**115**	**2,930**
	December	**26.0**	**112**	**2,902**
1990[1]		**291**	**115**	**33,538**
1989		239	115	27,578
1988		257	116	29,809
1987		217	115	25,007
1986		207	115	23,838

[1]Months may not add exactly to annual totals because of rounding.

Sheep Slaughter



Balance Sheet

YEAR	On Hand January 1, All Sheep and Lambs	Lamb Crop	Inshipments	Marketings[1]		Farm Slaughter[2]	Deaths		On Hand Following January 1, All Sheep and Lambs
				Sheep	Lambs		Sheep	Lambs	
	1,000 Head								
1990	**121**	**85**	**0**	**18**	**59**	**1**	**3**	**10**	**115**
1989	115	95	1	6	68	1	4	11	121
1988	105	90	2	4	60	1	4	13	115
1987	106	90	2	11	65	1	4	12	105
1986	108	90	1	14	63	1	4	11	106

[1] Includes custom slaughter and state outshipments, but excludes interfarm sales within Michigan.

[2] Excludes custom slaughter for farmers at commercial establishments.

Sheep and Lambs Production and Income

YEAR	Production[1]	Marketings[2]	Average Price Per Cwt.		Value of Production	Cash Receipts[3]	Value of Home Consumption	Gross Income
			Sheep	Lambs				
	1,000 Pounds		Dollars		1,000 Dollars			
1990	**8,345**	**9,050**	**16.00**	**55.00**	**4,094**	**4,030**	**151**	**4,181**
1989	9,325	8,410	21.00	62.00	5,277	4,882	205	5,087
1988	8,647	7,277	22.00	66.00	5,082	4,565	218	4,783
1987	8,755	8,740	25.00	75.00	5,894	5,813	248	6,061
1986	8,690	8,680	21.50	67.50	5,157	4,957	297	5,254

[1] Adjustments made for changes in inventory and for inshipments.

[2] Excludes custom slaughter for use on farms where produced and interfarm sales within the state.

[3] Receipts from marketings and sale of farm slaughter.

Wool Production and Value

YEAR	Number Sheep Shorn	Weight per Fleece	Production	Price per Pound	Value of Production
	1,000 Head	Pounds	1,000 Pounds	Cents	1,000 Dollars
1990	**105**	**7.2**	**756**	**.40**	**302**
1989	108	7.4	796	75	597
1988	99	7.6	750	75	563
1987	95	7.6	722	55	397
1986	100	7.6	764	46	351

Lamb Crop

YEAR	Breeding Ewes 1 Yr. + January 1	Lamb Crop per 100 Ewes 1 Year +	Lamb Crop
	1,000 Head	Number	1,000 Head
1990	**75**	**113**	**85**
1989	72	132	95
1988	67	134	90
1987	68	132	90
1986	71	127	90

Angora Goats and Mohair

Michigan conducted its third annual Angora goat survey during January, 1991. This showed the Angora goat inventory on January 1, 1991 to be 9,000 head, down 3,000 from a year earlier. Value per head averaged $65, unchanged from 1990. Total value of production was $585,000 down 25 percent. Angora goats are raised throughout the state and thrive well on land not well suited for field crop production.

Texas led all states in mohair production with 14.5 million pounds in 1990, accounting for 89 percent of production in the five major mohair states. Following Texas in order of production are: Oklahoma, New Mexico, Arizona, and Michigan. Michigan leads the nation in average clip per goat, due to its colder climate.

Angora goats were first brought to the United States in the mid-nineteenth century. Since its introduction, mohair demand has flourished due to the durable, dyeable, even somewhat soil and fire resistent qualities of this natural fiber. At least one major setback was experienced during the 1960's when the proliferation of synthetic fibers depressed mohair demand. As natural fibers made a comeback, so did the mohair industry.

Goat Inventory and Value, January 1

YEAR	Head	Average Price per Head	Inventory Value
		Dollars	*Dollars*
1991	**9,000**	**65**	**585,000**
1990	12,000	65	780,000
1989	15,000	70	1,050,000

Mohair Production and Value

YEAR	Goats Clipped	Average Clip per Goat	Production	Price per Pound	Value
		Pounds	*Pounds*	*Dollars*	*Dollars*
1990	**17,000**	**8.2**	**140,000**	**.70**	**98,000**
1989	20,000	8.0	160,000	1.39	222,000
1988	22,000	7.9	173,000	1.65	285,000

Poultry

The total value of production in Michigan during 1990 from eggs, turkeys, broilers, and other chickens (primarily culled layers) was nearly $122 million, 6 percent more than a year earlier. Only turkeys showed increases in the value of production during 1990. Eggs and turkeys contributed the largest share of this value. These were the percentages of total poultry production value by commodity: eggs 56 percent, turkeys 42 percent, other chickens 1 percent, and broilers 1 percent.

Higher **egg** prices offset the decline in egg production. Michigan egg production in 1990 totaled 1.4 billion, 3 percent less than a year earlier. The market egg price averaged 58.1 cents per dozen, nearly 2 cents more than the 1989 price. This is the highest price received by farmers since 1984 when the price was 60 cents per dozen. Michigan ranked 16th in egg production in 1990.

The total value of **turkey** production was $51.1 million in 1990. Turkey prices, averaging 41 cents per pound, fell 1 cent from the previous year. **Broiler** production was valued at $1.2 million in 1990, 2 percent less than 1989. This decrease was due entirely to a 7 percent drop in the average price per pound as the number of birds and pounds produced actually rose 3 and 5 percent respectively. Broilers averaged 34.5 cents per pound. The value of sales of **other chickens** was down 35 percent from 1989. The average price per pound, at 8 cents, was down 38 percent from a year earlier.

Number on Farms by Class, December 1

CLASS	**1990**	1989	1988	1987	1986
	1,000 Birds				
CHICKEN:					
Pullets of laying age	**3,450**	3,600	3,600	3,950	4,150
Hens	**1,950**	2,000	2,200	2,650	2,550
Pullets, 3 months plus	**465**	650	570	720	620
Pullets, less than 3 months	**720**	730	1,000	1,150	750
Other Chickens	**15**	20	30	30	30
All Chickens (excluding broilers)	**6,600**	7,000	7,400	8,500	8,100

Chickens: Average Number of Layers

MONTH	**1990**	1989	1988
		1,000 Birds	
December	**5,550**	5,900	6,600
January	**5,600**	6,000	6,525
February	**5,600**	5,900	6,275
March	**5,450**	5,650	6,050
April	**5,250**	5,500	5,950
May	**5,200**	5,550	5,850
June	**5,150**	5,550	5,850
July	**5,150**	5,500	5,900
August	**5,250**	5,550	5,950
September	**5,250**	5,650	6,050
October	**5,200**	5,650	6,050
November	**5,300**	5,600	5,900
Annual Average[1]	**5,329**	5,667	6,079

[1] December 1 previous year to November 30.

Egg Production

MONTH	**1990**	1989	1988
		Million Eggs	
December	**120**	131	143
January	**123**	132	135
February	**114**	116	124
March	**123**	122	133
April	**114**	117	127
May	**116**	121	128
June	**112**	119	123
July	**116**	124	128
August	**118**	123	131
September	**114**	119	128
October	**117**	116	129
November	**117**	114	124
Total[1]	**1,404**	1,454	1,553

[1] December 1 previous year to November 30.

Chicken and Broiler Production and Income

YEAR	Chickens (excluding broilers)				Broilers			
	Number Sold	Pounds Sold	Price per Pound	Value of Sales	Number Produced	Pounds Produced	Price per Pound	Value of Production[1]
	1,000 Birds	*1,000 Pounds*	*Cents*	*1,000 Dollars*	*1,000 Birds*	*1,000 Pounds*	*Cents*	*1,000 Dollars*
1990	**4,100**	**19,270**	**8.0**	**1,542**	**780**	**3,432**	**34.5**	**1,184**
1989	3,900	18,330	13.0	2,383	760	3,268	37.0	1,209
1988	5,300	24,380	7.5	1,829	770	3,311	35.0	1,159
1987	4,400	20,240	9.0	1,822	675	2,903	29.0	842
1986	5,300	23,850	12.0	2,862	600	2,520	35.0	882

[1] Gross income including home consumption.

Turkey Production and Income

YEAR	Market Turkeys			
	Number Raised[1]	Pounds Produced[2]	Price per Pound[3]	Gross Income
	1,000 Birds	*1,000 Pounds*	*Cents*	*1,000 Dollars*
1990	**4,300**	**124,700**	**41.0**	**51,127**
1989	3,500	101,500	42.0	42,630
1988	3,000	84,000	38.0	31,920
1987	3,000	79,500	36.0	28,620
1986	2,700	59,800	51.0	35,802

[1] Based on turkeys placed September previous year through August, including inshipments. Excludes death loss.

[2] Includes home consumption.

[3] Liveweight equivalent price.

DAIRY

General Information

Milk prices received by most farmers are set by regional Federal milk marketing orders (FMO's) which maintain order in fluid milk markets. The Southern Michigan Milk Marketing Order, also known as Federal Order 40, pools more than 90 percent of all milk produced in Michigan. Farmers affected by FMO's such as Order 40 are paid from a pool of money received for their milk sold at different prices for different uses.

Most orders have three class utilizations of milk accompanied by distinct prices for each class. Fluid milk is designated as a Class I utilization. Class II milk utilization includes the soft dairy products, ice cream, fluid cream, cottage cheese, and yogurt. Then there are the Class III or hard dairy products, hard cheese, butter, and non-fat dry milk. For the FMO's which apply to most Michigan milk, the Class III price is the M-W price. The Minnesota-Wisconsin (M-W) price is the price paid for Grade B milk by unregulated Minnesota and Wisconsin processors. Minimum milk class prices are established for all 41 FMO's in the United States based on specified relationships to the M-W price.

In addition to FMO's, a Federal price support program is in effect to guarantee milk prices at or above a legislated level. The government supports this minimum price by making purchases of Class III products. For example, if the M-W price were to fall below the legislated price minimum, the government might buy cheese to maintain the price support level. This in turn supports the prices for milk marketed through the FMO's because the pricing mechanism is based on the M-W price.

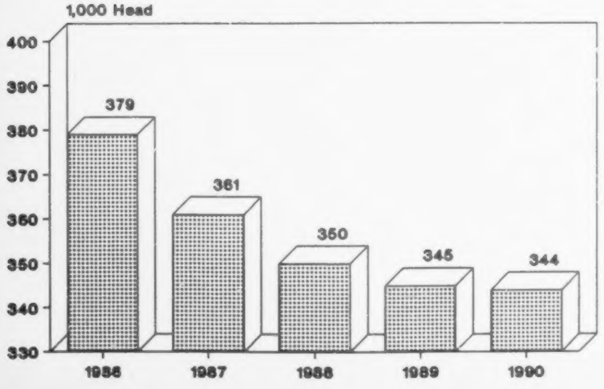
Michigan milk prices are affected by regional, national and international forces. During the 1980's in general, most U.S. exports were Government sales and donations. Increased non-fat dry milk demand, particularly by foreign countries, sent the M-W price soaring in the last half of 1989. Unlike earlier years, these exports of U.S. non-fat dry milk originated in the private sector. Due to the relationship the M-W has with FMO pricing schemes, domestic prices soared as well. When the world price fell below the domestic support price in 1990, not surprisingly U.S. exports also fell. World prices were affected by surpluses in the European Community and heavily discounted products from Eastern Europe. This is only a partial explanation of how world economic forces alter Michigan dairy prices.

Regional forces also have an impact on Michigan's dairy industry. In 1989, much Michigan milk was shipped to milk-shy southeastern markets. When regional production rebounded in 1990, more Michigan milk stayed in the state. Thus, Class I utilizations returned to more normal levels.

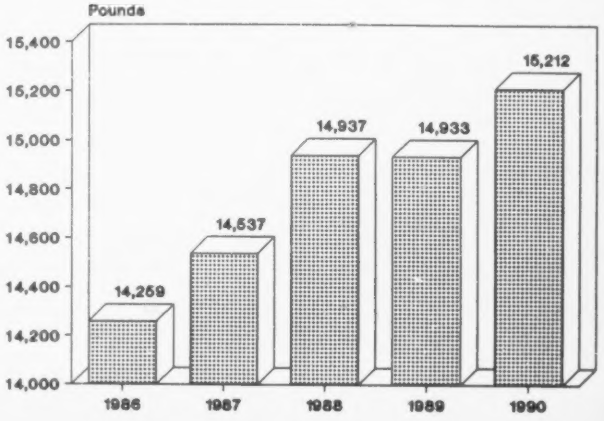
Dairy policy is the biggest factor affecting prices nationally. The USDA's Commodity Credit Corporation (CCC) purchases butter and non-fat dry milk under the dairy price support program in order to guarantee a minimum of $9.90 per hundredweight for milk testing 3.5 percent butterfat. Several offsetting adjustments were made in 1990 to encourage greater commercial use of butter and reduce CCC purchases. The USDA's Agriculture Marketing Service changed the butterfat formula in 1990 based on "the lower value of butterfat in today's marketplace caused by changing consumer preferences." In the period from 1974 to 1989, consumption of butter per capita fell from 4.5 pounds to 4.3 pounds per year. Cheese consumption however increased 62 percent, averaging 23.7 pounds per person in 1989. The health of the national economy also impacts the dairy industry. No industry is immune from the negative effects of an economy in recession, thus commercial use typically stumbles in a slower economy.

A thorough review of the M-W price series is underway with the help of the USDA's National Agricultural Statistics Service. Falling Grade B milk production in Minnesota and Wisconsin where the M-W is established is gradually rendering the M-W price unusable for formulating milk prices. Price alternatives are being studied and developed for possible implementation in 1992. Parallel price series may be run to assure new models respond well to seasonal swings in production and consumption.

Average Number of Milk Cows on Farms



Average Production Per Cow



Cows and Milk Production

Michigan milk production rebounded strongly in 1990. After a production setback in 1989, Michigan dairy herds produced 5.23 billion pounds of milk, 2 percent more than a year earlier. Weather conditions were optimal for hay production in 1990, but milk prices did not fair as well. Milk prices peaked in January at $16.00 per hundredweight (cwt.), but fell each successive month in 1990, averaging $12.10 per cwt. in December.

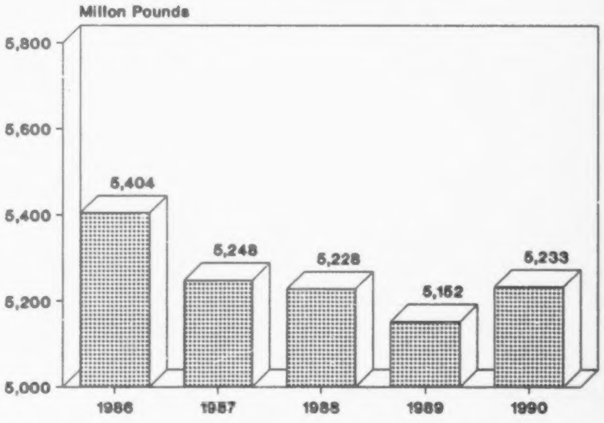
Estimated at 344,000 head, the average number of milk cows on Michigan farms fell for the fifth year in a row. Despite declining milk prices, the 1990 milk price averaged $14.10 per cwt. in 1990, 4 percent higher than 1989. producers also received higher prices for cull cows. Farm prices received for cows averaged $51.30 per cwt. in 1990, $3.70 more than the previous year. Milk cows for dairy herd replacements cost producers more in 1990. Averaging $1,200 per head, milk cow replacements increased $140 over 1989.

Michigan placed 7th nationally, ranking states by their annual milk production. Michigan milk was 3.5 percent of the total U.S. production. Texas narrowly edged out Michigan for 6th place with a state herd 42,000 head greater than Michigan's.

Milk Cows on Farms

MONTH	1990	1989	1988	1987	1986
	1,000 Head				
January	**344**	343	357	367	396
February	**344**	345	355	364	394
March	**344**	345	354	363	392
April	**345**	345	352	362	386
May	**345**	345	352	361	381
June	**345**	345	351	360	376
July	**345**	345	350	359	372
August	**345**	346	348	358	372
September	**345**	344	347	358	372
October	**343**	344	345	358	368
November	**343**	344	345	358	368
December	**343**	344	345	358	368
Average	**344**	345	350	361	379

Total Milk Production



Total Milk Production

MONTH	1990	1989	1988	1987	1986
	Million Pounds				
January	**435**	439	439	433	465
February	**404**	407	417	397	426
March	**447**	450	448	446	474
April	**438**	438	431	438	465
May	**454**	452	452	462	490
June	**443**	438	448	452	472
July	**459**	436	457	456	461
August	**457**	434	437	449	458
September	**428**	413	429	430	435
October	**427**	416	428	435	431
November	**412**	406	411	415	406
December	**429**	423	431	435	421
Annual	**5,233**	5,152	5,228	5,248	5,404

Milk Production per Cow

MONTH	1990	1989	1988	1987	1986
	Pounds				
January	**1,265**	1,280	1,230	1,180	1,175
February	**1,175**	1,180	1,175	1,090	1,080
March	**1,300**	1,305	1,265	1,230	1,210
April	**1,270**	1,270	1,225	1,210	1,205
May	**1,315**	1,310	1,285	1,280	1,285
June	**1,285**	1,270	1,275	1,255	1,255
July	**1,330**	1,265	1,305	1,270	1,240
August	**1,325**	1,255	1,255	1,255	1,230
September	**1,240**	1,200	1,235	1,200	1,170
October	**1,245**	1,210	1,240	1,215	1,170
November	**1,200**	1,180	1,190	1,160	1,100
December	**1,250**	1,230	1,250	1,215	1,145
Annual	**15,212**	14,933	14,937	14,537	14,259

Farms, Milk Production, Utilization, Marketing and Value

PRODUCTION AND USE	Unit	1990	1989	1988	1987
FARMS					
Number of operations with milk cows[1]	Number	**6,500**	6,500	7,000	7,000
Number of Grade A herds	Number	**4,900**	4,900	5,100	5,300
PRODUCTION AND UTILIZATION					
Production of Milk					
Total milk produced on farms	Mil. Lbs.	**5,233**	5,152	5,228	5,248
Milkfat produced	Mil. Lbs.	**191**	190	191	191
Percentage of milkfat	Percent	**3.65**	3.68	3.66	3.63
Utilization					
Milk Marketed by Producers					
Sold to plants and dealers as whole milk[2]	Mil. Lbs.	**5,150**	5,080	5,140	5,160
Sold directly to consumers	Mil. Lbs.	**13**	12	13	13
Milk used where produced					
Fed to calves	Mil. Lbs.	**60**	50	60	60
Used by farm household	Mil. Lbs.	**10**	10	15	15
MARKETINGS					
Milk Marketed by Producers					
Sold to plants and dealers					
Quantity[2]	Mil. Lbs.	**5,150**	5,080	5,140	5,160
Percent fluid grade	Percent	**97**	98	97	97
Price per 100 pounds	Dollars	**14.10**	13.60	12.40	12.60
Cash receipts	1,000 Dol.	**726,150**	690,880	637,360	650,160
Sold Directly to Consumers					
Quantity	1,000 Qts.	**6,047**	5,581	6,047	6,047
Price per quart	Dollars	**.55**	.55	.55	.50
Cash receipts	1,000 Dol.	**3,326**	3,070	3,326	3,023
Total Marketings					
Milk utilized	Mil. Lbs.	**5,163**	5,092	5,153	5,173
Price per 100 pounds of milk	Dollars	**14.13**	13.63	12.43	12.63
Price per pound milkfat	Dollars	**3.87**	3.70	3.40	3.48
Total cash receipts	1,000 Dol.	**729,476**	693,950	640,686	653,183
VALUE					
Value of milk used where produced[3]	1,000 Dol.	**9,890**	8,177	9,325	9,470
TOTAL VALUE OF MILK PRODUCED	1,000 Dol.	**739,366**	702,127	650,011	662,653

[1] Any place having one or more milk cows on hand at any time during the year.
[2] Includes the equivalent amounts of milk for cream sold to plants and dealers.
[3] Includes value of milk fed to calves and milk used by farm household.

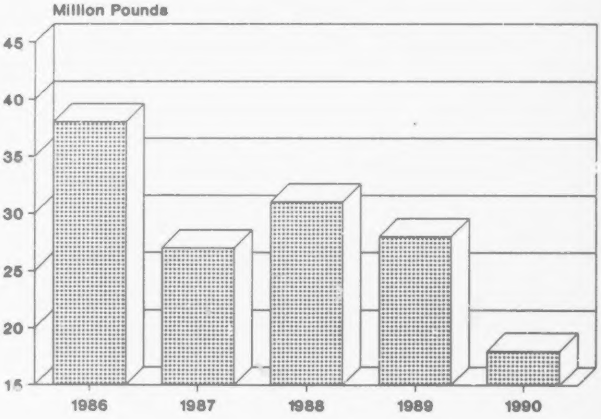
Dairy Products

The production of cheese in Michigan in 1990 increased 46 percent from 1989 to almost 108 million pounds. That placed Michigan 13th among states in cheese output. Butter production, on the other hand, plunged 35 percent to just over 18 million pounds. Michigan ranked eighth in butter production. Ice cream production held steady at about 27 million gallons, placing Michigan tenth in ice cream production. Other important dairy products manufactured in Michigan are non-fat dry milk, cottage cheese, ice milk and yogurt. State estimates for these products are not published to protect individual firm confidentiality. There were 48 plants which produced one or more dairy products for which statistics are compiled.

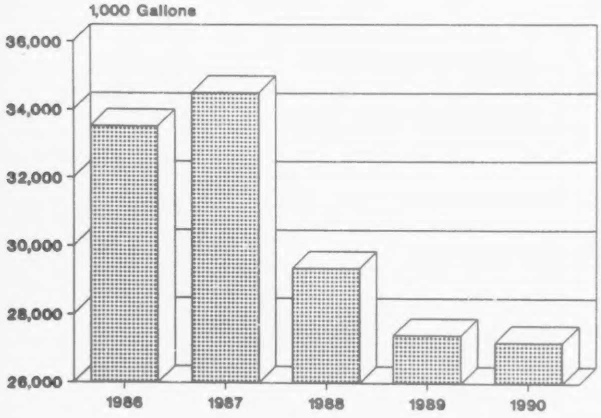
Butter Production

MONTH	1990	1989	1988
		1,000 Pounds	
January	**1,177**	2,361	3,069
February	**1,349**	2,759	3,561
March	**1,775**	3,317	3,402
April	**1,637**	3,426	3,307
May	**1,737**	3,846	3,375
June	**1,560**	2,046	2,758
July	**1,484**	1,590	1,537
August	**1,388**	1,836	1,175
September	**1,173**	1,445	1,789
October	**1,439**	1,640	2,078
November	**1,482**	1,692	2,136
December	**1,820**	1,677	2,871
Annual	**18,021**	27,635	31,058

Butter Production



Ice Cream Production



Ice Cream Production

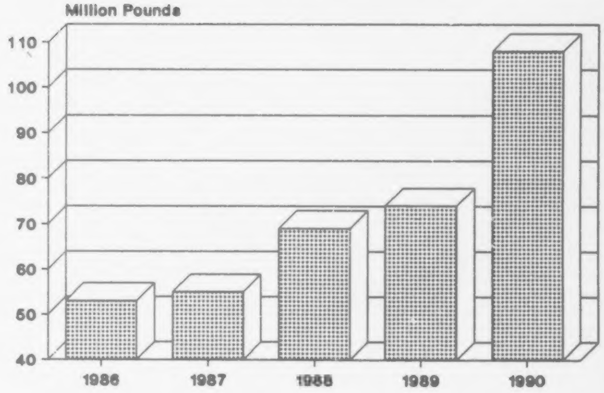
MONTH	1990	1989	1988
		1,000 Gallons	
January	**1,882**	1,995	2,142
February	**1,807**	2,015	2,235
March	**2,344**	2,361	2,439
April	**2,103**	2,062	2,333
May	**2,571**	2,839	2,806
June	**2,659**	2,946	3,229
July	**3,128**	3,040	3,185
August	**2,905**	2,738	3,152
September	**2,346**	2,124	2,532
October	**2,080**	1,871	1,870
November	**1,712**	1,793	1,725
December	**1,680**	1,637	1,730
Annual	**27,217**	27,421	29,378

Total Cheese Production[1]
Excluding Cottage Cheese

MONTH	1990	1989	1988
		1,000 Pounds	
January	**9,292**	6,324	5,216
February	**9,556**	7,037	5,277
March	**10,252**	6,521	5,894
April	**8,992**	5,438	5,626
May	**9,447**	5,596	5,800
June	**9,352**	5,793	5,753
July	**9,240**	5,199	5,660
August	**9,509**	4,866	5,937
September	**7,495**	5,095	5,543
October	**8,257**	6,796	6,696
November	**7,432**	6,827	5,269
December	**9,066**	8,181	6,372
Annual	**107,890**	73,673	69,043

[1] Includes American Cheeses, Mozzarella and other Italian Cheeses, Cream Cheese, Feta, Havarti and Farmers Cheese.

Total Cheese Production
Excluding Cottage Cheese



Minor Specialty Cheese Production[1]

MONTH	1990	1989	1988
		1,000 Pounds	
January	**569**	—	—
February	**599**	—	—
March	**482**	—	—
April	**325**	—	—
May	**641**	—	—
June	**457**	—	—
July	**395**	—	—
August	**498**	—	—
September	**555**	—	—
October	**587**	—	—
November	**513**	—	—
December	**310**	—	—
Annual	**5,931**	—	—

[1] Estimates started in 1990. Includes Farmers Cheese, French Cheeses, Sage and Feta Cheese.

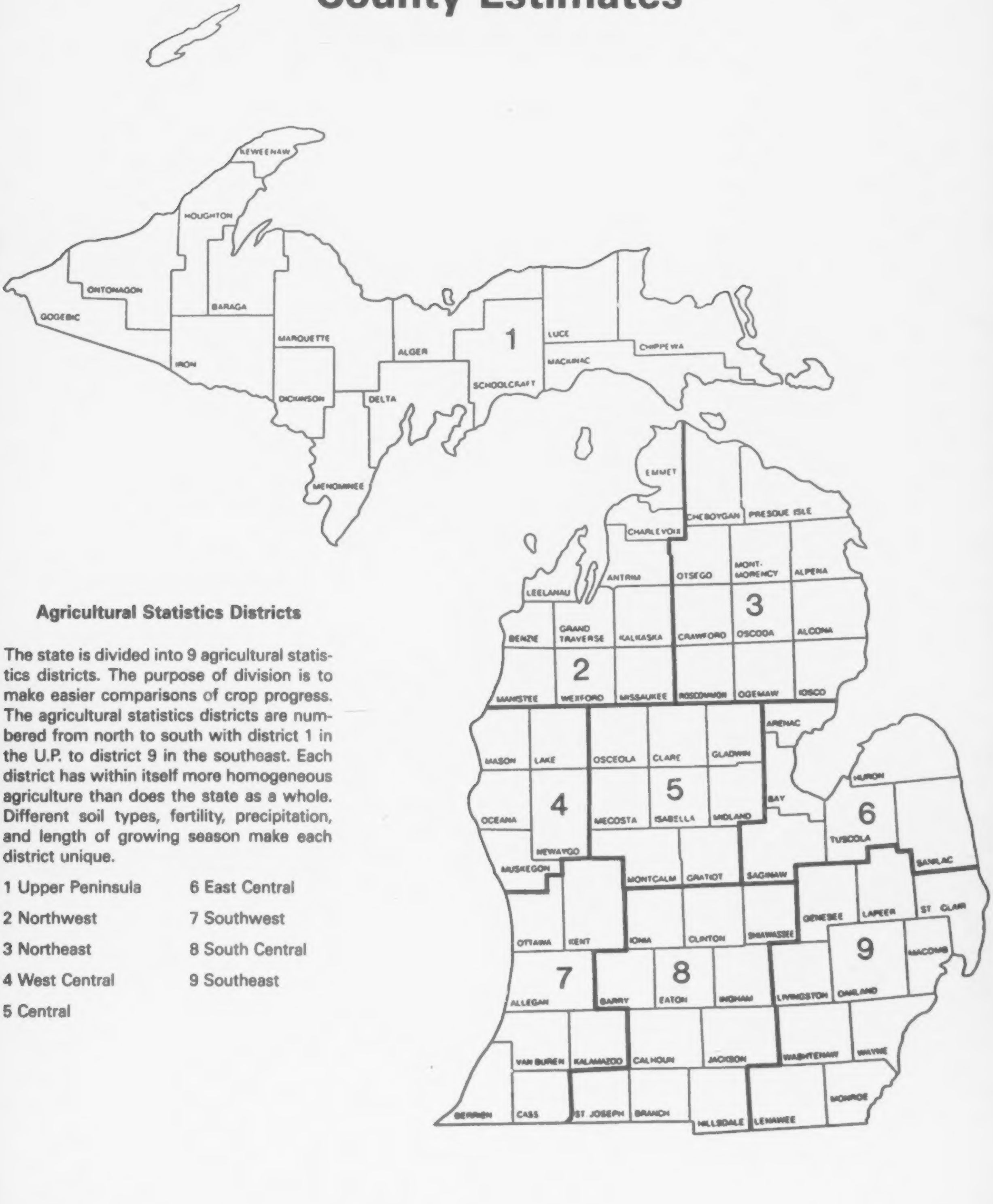
Ice Milk Production

MONTH	1990	1989	1988
		1,000 Gallons	
January	**723**	731	659
February	**820**	718	740
March	**1,189**	1,108	992
April	**1,531**	1,174	1,123
May	**1,372**	1,705	1,581
June	**1,423**	1,800	1,803
July	**1,472**	1,886	1,703
August	**1,323**	1,700	1,695
September	**878**	1,011	1,059
October	**763**	954	800
November	**575**	849	751
December	**499**	815	715
Annual	**12,568**	14,451	13,621

Milk Sherbet Production

MONTH	1990	1989	1988
		1,000 Gallons	
January	**92**	128	153
February	**138**	157	125
March	**127**	152	172
April	**155**	184	184
May	**177**	167	191
June	**190**	270	266
July	**166**	179	235
August	**154**	191	247
September	**116**	135	190
October	**126**	133	108
November	**95**	114	137
December	**110**	161	171
Annual	**1,646**	1,971	2,179

County Estimates


KEWEENAW
HOUGHTON
ONTONAGON
GOGEBIC
BARAGA
IRON
MARQUETTE
DICKINSON
ALGER
DELTA
MENOMINEE
1
SCHOOLCRAFT
LUCE
MACKINAC
CHIPPEWA
EMMET
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
LEELANAU
ANTRIM
OTSEGO
MONT-MORENCY
ALPENA
3
BENZIE
GRAND TRAVERSE
KALKASKA
CRAWFORD
OSCODA
ALCONA
2
MANISTEE
WEXFORD
MISSAUKEE
ROSCOMMON
OGEMAW
IOSCO
ARENAC
MASON
LAKE
OSCEOLA
CLARE
GLADWIN
HURON
5
4
OCEANA
MECOSTA
ISABELLA
MIDLAND
BAY
6
TUSCOLA
NEWAYGO
MUSKEGON
MONTCALM
GRATIOT
SAGINAW
SANILAC
OTTAWA
KENT
IONIA
CLINTON
SHIAWASSEE
GENESEE
LAPEER
ST CLAIR
9
MACOMB
7
8
ALLEGAN
BARRY
EATON
INGHAM
LIVINGSTON
OAKLAND
VAN BUREN
KALAMAZOO
CALHOUN
JACKSON
WASHTENAW
WAYNE
BERRIEN
CASS
ST JOSEPH
BRANCH
HILLSDALE
LENAWEE
MONROE

Agricultural Statistics Districts

The state is divided into 9 agricultural statistics districts. The purpose of division is to make easier comparisons of crop progress. The agricultural statistics districts are numbered from north to south with district 1 in the U.P. to district 9 in the southeast. Each district has within itself more homogeneous agriculture than does the state as a whole. Different soil types, fertility, precipitation, and length of growing season make each district unique.

1 Upper Peninsula
2 Northwest
3 Northeast
4 West Central
5 Central
6 East Central
7 Southwest
8 South Central
9 Southeast

1990 Rank of Michigan's Counties[1]

COUNTY	Farms[2]	Corn	Soy-beans	Wheat	Dry Beans	Oats	Pota-toes	Barley	All Cattle	Milk Cows	All Hogs	HPLA[3]	Sheep
Alger	76	—	—	—	—	76*	—	24	69*	70*	—	—	20*
Baraga	78	—	—	—	—	67*	—	25	77*	70*	—	—	—
Chippewa	48	—	—	58	—	23*	—	17*	47	45	62*	—	20*
Delta	56	57	—	59	23	35	11*	4	43*	38*	47	—	65*
Dickinson	69	65	—	—	—	62*	10	40	66	60*	62*	—	—
Gogebic	77	—	—	—	—	76*	—	—	79*	76*	—	—	—
Houghton	65	—	—	—	—	56*	—	13*	71	67	—	19*	48*
Iron	72	—	—	69*	—	62*	18*	44	69*	74	72*	—	46*
Keweenaw	83	—	—	—	—	—	—	—	—	—	—	—	—
Luce	80	—	—	66*	—	—	28	30	75*	—	72*	—	—
Mackinac	75	—	—	69*	—	64*	—	37	64	55*	—	—	71*
Marquette	71	—	—	—	—	71	29*	28	72*	68*	72*	—	62*
Menominee	47	47	—	68	—	36*	—	5	25*	20	57	35*	48*
Ontonagon	67	—	—	69*	—	56*	—	—	61	65*	—	—	56*
Schoolcraft	79	—	—	69*	42	67*	25	17*	74	76*	67*	—	77*
Antrim	57	53	—	57	33	53*	7	—	56	52*	46	44*	42*
Benzie	64	67	—	73	—	76*	—	—	75*	79	53	—	71*
Charlevoix	58	55	—	64*	—	61	—	26	57	52*	55*	23*	65*
Emmet	61	58	—	66*	—	48	22	48	54	55*	62*	44*	56*
Grand Traverse	42	49	—	48	—	50*	—	41	58*	55*	42	44*	54*
Kalkaska	73	62	—	60	—	76*	11*	—	77*	73	54	—	71*
Leelanau	46	54	—	62*	—	67*	—	—	60	62*	55*	44*	71*
Manistee	55	60	—	61	24	72*	—	49*	67	75	60*	—	62*
Missaukee	51	45	—	56	—	28	—	—	18*	10	43	—	42*
Wexford	62	56	50	55	—	67*	—	—	62	55*	62*	—	71*
Alcona	59	63	—	54	34*	53*	—	31	51*	62*	71	35*	30*
Alpena	44	48	41	47	14	5	16	13*	37*	37	58*	44*	33*
Cheboygan	63	66	—	62*	—	66	—	11	51*	46*	58*	44*	54*
Crawford	82	—	—	—	—	—	—	—	82*	—	—	—	77*
Iosco	60	46	43	43	36*	31*	—	39	43*	50*	48	—	56*
Montmorency	70	59	45	52*	25	36*	—	42*	63	55*	67*	—	51*
Ogemaw	54	41	49	46	—	25	—	8	31	28	52	—	51*
Oscoda	74	69	—	—	—	72*	—	—	68	62*	67*	—	44*
Otsego	66	64	—	52*	36*	56*	14	55	65	65*	62*	—	68*
Presque Isle	53	61	—	49	12	13	3	7	40*	40*	49*	44*	65*
Roscommon	81	—	—	—	—	76*	—	—	79*	—	72*	—	71*
Lake	68	68	—	64*	—	75	—	—	72*	70*	67*	44*	51*
Mason	43	42	42	37	—	30	—	49*	42	34*	39	31*	20*
Muskegon	40	36	37	44	—	49	—	—	36	32	34*	44*	56*
Newaygo	34	38	44	39	—	33	—	54	23	13*	34*	9	40
Oceana	35	44	—	45	—	52	—	—	35	34*	29*	44*	56*
Clare	52	51	46	42	39*	46*	—	27	40*	40*	31*	—	27*
Gladwin	45	43	38*	38	19	36*	—	38	43*	46*	45	35*	30*
Gratiot	23	9	5	11	4	17*	26	—	11	13*	18*	12	33*

1990 Rank of Michigan's Counties[1]

COUNTY	Farms[2]	Corn	Soy-beans	Wheat	Dry Beans	Oats	Pota-toes	Barley	All Cattle	Milk Cows	All Hogs	HPLA[3]	Sheep
Isabella	27	32	28	18	10	6	—	6	8	8	21	7	20*
Mecosta	37	40	47*	40	18	39*	8	32*	28	24*	33	35*	17
Midland	41	34	24	35	9	50*	—	—	50	68*	36	44*	56*
Montcalm	24	25	31	15	7	11*	1	13*	17	11	28	31*	33*
Osceola	39	50	47*	51	—	43*	—	22	25*	21*	44	35*	33*
Arenac	50	35	33	30	8	17*	9	46	48*	38*	37*	28*	68*
Bay	26	22	17	27	3	46*	2	51	51*	50*	49*	35*	62*
Huron	6	1	26*	2	1	2	18*	1	1	2	9	4	46*
Saginaw	5	7*	2	4	5	9	23	47	30	30	29*	22	11*
Sanilac	2	3	7	1	6	1	17	2	2	1	25*	23*	38*
Tuscola	15	6	9	7	2	3	4	3	21	21*	23*	6	26
Allegan	1	11	26*	23	—	17*	6	—	3	4	2	3	8
Berrien	3	26	19	29	—	56*	—	—	48*	46*	18*	25*	48*
Cass	32	13	18	28	—	45	—	32*	39	43*	1	25*	11*
Kalamazoo	31	20	21	22	—	42	—	29	34	36	14*	5	6
Kent	8	27	35	21	20*	15	20	23	6	7	22	31*	33*
Ottawa	4	29	38*	34	—	31*	—	—	4	5	3	1	44*
Van Buren	10	30	32	36	—	53*	—	36	37*	43*	4	8	25
Barry	28	28	25	24*	22	34	—	19	18*	16*	20	35*	18
Branch	22	4	10	26	31*	39*	—	—	20	29	5	28*	14*
Calhoun	16	10	16	13	39*	16	—	—	14*	24*	10	44*	19
Clinton	9	17	6	6	16	7*	—	34*	5	3	13	17	7
Eaton	14	15	12	10	11	27	15	42*	24	27	14*	15	5
Hillsdale	18	7*	8	17	—	26	—	—	14*	15	8	10	11*
Ingham	25	14	13	12	29*	29	31	16	13	12	14*	44*	4
Ionia	21	16	15	9	13	11*	—	12	7	6	11	2	20*
Jackson	19	19	30	24*	39*	22	—	34*	10	23	6	16	2
St. Joseph	29	5	11	33	17	56*	—	—	33	33	7	13	9
Shiawassee	17	24	4	5	20*	4	29*	20	22	19	27	18	14*
Genesee	30	23	20	20	28	20	24	52	32	40*	25*	31*	30*
Lapeer	12	18	29	19	15	7*	21	10	12	9	31*	25*	10
Lenawee	7	2	1	3	31*	14	13	53	9	16*	12	21	3
Livingston	33	33	34	32	38	43*	—	—	25*	26	37*	35*	16
Macomb	36	37	23	31	27	39*	—	—	55	46*	40*	28*	41
Monroe	11	12	3	8	34*	21	5	45	46	52*	23*	11	27*
Oakland	38	39	40	41	—	64*	—	—	58*	60*	49*	35*	27*
St. Clair	20	31	14	16	26	23*	—	21	29	31	40*	14	38*
Washtenaw	13	21	22	14	29*	10	27	9	16	18	17	19*	1
Wayne	49	52	36	50	—	72*	—	—	79*	78	60*	44*	68*

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[1] Rankings based on 1990 County Estimates. Livestock rankings based on number of head. Crop rankings based on production. Corn rankings based on grain production.

[2] Based on 1987 Census of Agriculture.

[3] HPLA–Hens and Pullets of Laying Age.

* Tied with another county.

CATTLE AND SHEEP: January 1, 1991

DISTRICT AND COUNTY	All Cattle and Calves	All Cows that have Calved	Milk Cows	Beef Cows	All Sheep and Lambs
		Head			Head
Alger	2,100	600	400	200	1,800
Baraga	1,200	700	400	300	---
Chippewa	8,500	3,500	1,800	1,700	1,800
Delta	9,000	4,600	2,600	2,000	200
Dickinson	2,900	1,400	900	500	---
Gogebic	500	350	150	200	---
Houghton	2,000	1,000	600	400	450
Iron	2,100	1,300	300	1,000	500
Keweenaw	---	---	---	---	---
Luce	1,600	400	---	400	---
Mackinac	3,400	1,500	1,000	500	100
Marquette	1,900	900	500	400	250
Menominee	19,000	8,500	7,000	1,500	450
Ontonagon	4,000	1,600	700	900	300
Schoolcraft	1,800	650	150	500	50
UPPER PENINSULA (1)	60,000	27,000	16,500	10,500	5,900
Antrim	5,500	1,900	1,300	600	600
Benzie	1,600	350	50	300	100
Charlevoix	5,300	2,600	1,300	1,300	200
Emmet	5,900	3,200	1,000	2,200	300
Grand Traverse	4,700	1,800	1,000	800	350
Kalkaska	1,200	550	350	200	100
Leelanau	4,300	1,200	800	400	100
Manistee	2,800	1,400	200	1,200	250
Missaukee	24,000	10,100	9,000	1,100	600
Wexford	3,700	1,400	1,000	400	100
NORTHWEST (2)	59,000	24,500	16,000	8,500	2,700
Alcona	6,000	3,000	800	2,200	1,200
Alpena	11,000	4,500	2,700	1,800	1,000
Cheboygan	6,000	3,300	1,700	1,600	350
Crawford	100	---	---	---	50
Iosco	9,000	3,200	1,500	1,700	300
Montmorency	3,500	1,400	1,000	400	400
Ogemaw	15,000	6,000	4,800	1,200	400
Oscoda	2,600	1,200	800	400	550
Otsego	3,300	900	700	200	150
Presque Isle	10,000	4,400	2,500	1,900	200
Roscommon	500	100	---	100	100
NORTHEAST (3)	67,000	28,000	16,500	11,500	4,700
Lake	1,900	900	400	500	400
Mason	9,100	3,600	3,000	600	1,800
Muskegon	11,500	4,500	3,700	800	300
Newaygo	21,000	9,200	7,900	1,300	800
Oceana	12,500	4,300	3,000	1,300	300
WEST CENTRAL (4)	56,000	22,500	18,000	4,500	3,600
Clare	10,000	4,300	2,500	1,800	1,400
Gladwin	9,000	3,800	1,700	2,100	1,200
Gratiot	30,000	9,300	7,900	1,400	1,000

CATTLE AND SHEEP: January 1, 1991

DISTRICT AND COUNTY	All Cattle and Calves	All Cows that have Calved	Milk Cows	Beef Cows	All Sheep and Lambs
	Head				Head
Isabella	31,500	13,400	10,100	3,300	1,800
Mecosta	18,500	8,100	5,900	2,200	2,100
Midland	7,000	1,600	500	1,100	300
Montcalm	25,000	10,300	8,700	1,600	1,000
Osceola	19,000	9,200	6,700	2,500	1,000
CENTRAL (5)	150,000	60,000	44,000	16,000	9,800
Arenac	8,000	2,900	2,600	300	150
Bay	6,000	1,900	1,500	400	250
Huron	85,000	18,900	17,300	1,600	500
Saginaw	15,500	5,200	4,200	1,000	2,500
Sanilac	73,000	27,800	25,700	2,100	900
Tuscola	22,500	8,800	6,700	2,100	1,500
EAST CENTRAL (6)	210,000	65,500	58,000	7,500	5,800
Allegan	47,000	17,700	14,700	3,000	3,200
Berrien	8,000	3,300	1,700	1,600	450
Cass	10,500	4,500	1,900	2,600	2,500
Kalamazoo	13,000	4,400	2,800	1,600	3,700
Kent	38,500	16,000	12,500	3,500	1,000
Ottawa	42,000	15,900	13,500	2,400	550
Van Buren	11,000	3,200	1,900	1,300	1,600
SOUTHWEST (7)	170,000	65,000	49,000	16,000	13,000
Barry	24,000	11,100	7,500	3,600	2,000
Branch	23,000	6,600	4,600	2,000	2,300
Calhoun	27,000	9,900	5,900	4,000	1,900
Clinton	41,500	17,300	15,700	1,600	3,500
Eaton	20,500	7,900	4,900	3,000	3,800
Hillsdale	27,000	9,500	7,700	1,800	2,500
Ingham	27,500	11,000	8,500	2,500	3,900
Ionia	38,000	15,200	13,000	2,200	1,800
Jackson	30,500	10,500	6,400	4,100	7,100
St. Joseph	14,000	5,200	3,600	1,600	2,900
Shiawassee	22,000	8,800	7,200	1,600	2,300
SOUTH CENTRAL (8)	295,000	113,000	85,000	28,000	34,000
Genesee	14,500	3,700	2,500	1,200	1,200
Lapeer	29,500	12,000	9,300	2,700	2,600
Lenawee	31,000	9,400	7,500	1,900	6,000
Livingston	19,000	7,000	5,400	1,600	2,200
Macomb	5,700	2,200	1,700	500	650
Monroe	8,800	1,700	1,300	400	1,400
Oakland	4,700	2,500	900	1,600	1,400
St. Clair	18,000	6,500	4,000	2,500	900
Washtenaw	26,300	9,300	7,300	2,000	19,000
Wayne	500	200	100	100	150
SOUTHEAST (9)	158,000	54,500	40,000	14,500	35,500
STATE	1,225,000	460,000	343,000	117,000	115,000

NOTE: Cattle estimates are not published for counties with less than 100 cattle.
Sheep estimates are not published for counties with less than 50 sheep.

CATTLE AND SHEEP: January 1, 1990

DISTRICT AND COUNTY	All Cattle and Calves	All Cows that have Calved	Milk Cows	Beef Cows	All Sheep and Lambs
		Head			Head
Alger	2,100	600	400	200	1,600
Baraga	1,300	700	400	300	---
Chippewa	8,700	3,800	1,900	1,900	1,600
Delta	8,800	4,700	2,600	2,100	200
Dickinson	2,900	1,400	800	600	---
Gogebic	600	350	150	200	---
Houghton	2,200	1,100	700	400	500
Iron	2,100	1,400	300	1,100	500
Keweenaw	---	---	---	---	---
Luce	1,700	400	---	400	---
Mackinac	3,500	1,600	1,000	600	100
Marquette	1,700	900	400	500	300
Menominee	19,000	8,600	7,000	1,600	400
Ontonagon	3,500	1,700	700	1,000	400
Schoolcraft	1,900	750	150	600	100
UPPER PENINSULA (1)	60,000	28,000	16,500	11,500	5,700
Antrim	6,000	2,000	1,300	700	600
Benzie	1,700	450	---	---	100
Charlevoix	5,000	2,600	1,300	1,300	200
Emmet	6,300	3,300	1,100	2,200	400
Grand Traverse	4,900	2,000	1,100	900	400
Kalkaska	1,200	500	300	200	100
Leelanau	4,400	1,200	800	400	100
Manistee	3,000	1,550	---	---	300
Missaukee	23,500	10,400	9,200	1,200	600
Wexford	4,000	1,500	1,100	400	100
NORTHWEST (2)	60,000	25,500	16,500	9,000	2,900
Alcona	6,000	2,900	800	2,100	1,100
Alpena	11,500	4,700	2,600	2,100	1,200
Cheboygan	6,100	3,400	1,600	1,800	400
Crawford	100	---	---	---	50
Iosco	9,300	3,400	1,400	2,000	400
Montmorency	3,300	1,400	1,000	400	400
Ogemaw	15,000	6,000	4,600	1,400	300
Oscoda	2,800	1,300	800	500	600
Otsego	3,400	1,100	800	300	200
Presque Isle	10,000	4,700	2,400	2,300	200
Roscommon	500	100	---	100	50
NORTHEAST (3)	68,000	29,000	16,000	13,000	4,900
Lake	2,100	1,000	400	600	400
Mason	9,400	3,700	3,100	600	1,800
Muskegon	12,000	4,700	3,800	900	300
Newaygo	22,000	9,200	7,800	1,400	700
Oceana	13,500	4,400	2,900	1,500	400
WEST CENTRAL (4)	59,000	23,000	18,000	5,000	3,600
Clare	10,500	4,800	2,600	2,200	1,600
Gladwin	9,500	4,100	1,800	2,300	1,300
Gratiot	31,500	9,600	8,000	1,600	1,100

CATTLE AND SHEEP: January 1, 1990

DISTRICT AND COUNTY	All Cattle and Calves	All Cows that have Calved	Milk Cows	Beef Cows	All Sheep and Lambs
	Head				Head
Isabella	33,000	13,700	10,000	3,700	2,000
Mecosta	18,000	8,400	6,000	2,400	1,900
Midland	7,500	1,600	400	1,200	400
Montcalm	24,000	10,300	8,600	1,700	1,100
Osceola	19,000	9,500	6,600	2,900	1,100
CENTRAL (5)	153,000	62,000	44,000	18,000	10,500
Arenac	8,000	3,100	2,700	400	150
Bay	5,500	1,900	1,400	500	250
Huron	80,000	18,100	16,500	1,600	500
Saginaw	14,500	5,100	4,000	1,100	2,900
Sanilac	70,000	27,200	25,000	2,200	1,100
Tuscola	21,000	8,600	6,400	2,200	1,500
EAST CENTRAL (6)	199,000	64,000	56,000	8,000	6,400
Allegan	45,500	17,800	15,000	2,800	3,600
Berrien	7,500	3,600	1,700	1,900	500
Cass	10,500	5,100	2,100	3,000	2,700
Kalamazoo	13,500	5,100	3,000	2,100	3,600
Kent	37,000	17,100	13,000	4,100	1,100
Ottawa	43,000	16,000	13,200	2,800	700
Van Buren	10,000	3,800	2,000	1,800	1,800
SOUTHWEST (7)	167,000	68,500	50,000	18,500	14,000
Barry	25,000	11,900	7,700	4,200	1,800
Branch	22,500	6,800	4,500	2,300	2,500
Calhoun	27,500	10,200	6,200	4,000	2,000
Clinton	40,500	17,500	15,500	2,000	3,800
Eaton	20,500	8,400	4,900	3,500	3,800
Hillsdale	28,000	10,000	7,500	2,500	2,600
Ingham	28,000	11,600	8,700	2,900	4,300
Ionia	38,500	15,800	13,500	2,300	2,000
Jackson	30,500	11,400	6,700	4,700	7,500
St. Joseph	14,500	5,400	3,700	1,700	2,800
Shiawassee	22,500	9,000	7,100	1,900	2,400
SOUTH CENTRAL (8)	298,000	118,000	86,000	32,000	35,500
Genesee	15,000	4,000	2,600	1,400	1,100
Lapeer	30,000	12,500	9,500	3,000	2,800
Lenawee	31,000	9,700	7,700	2,000	7,000
Livingston	19,000	7,400	5,700	1,700	2,300
Macomb	6,000	2,400	1,800	600	700
Monroe	9,000	1,700	1,300	400	1,400
Oakland	5,000	2,800	1,000	1,800	1,500
St. Clair	18,500	6,700	3,900	2,800	1,000
Washtenaw	27,000	9,500	7,400	2,100	19,500
Wayne	500	300	100	200	200
SOUTHEAST (9)	161,000	57,000	41,000	16,000	37,500
STATE	1,225,000	475,000	344,000	131,000	121,000

NOTE: Cattle estimates are not published for counties with less than 100 cattle.
Sheep estimates are not published for counties with less than 50 sheep.

MILK: Head, Production Per Cow, Total Production, 1989-90

DISTRICT AND COUNTY	1990			1989		
	Milk Cows	Milk Per Cow	Total Milk Produced	Milk Cows	Milk Per Cow	Total Milk Produced
	Head	Pounds	1,000 Pounds	Head	Pounds	1,000 Pounds
Alger	400	14,500	5,800	400	14,250	5,700
Baraga	400	15,500	6,200	400	15,250	6,100
Chippewa	1,900	13,680	26,000	1,900	13,420	25,500
Delta	2,600	13,650	35,500	2,600	13,460	35,000
Dickinson	800	15,750	12,600	800	15,630	12,500
Gogebic	150	14,670	2,200	150	14,670	2,200
Houghton	700	14,570	10,200	700	14,290	10,000
Iron	300	15,670	4,700	300	15,670	4,700
Keweenaw	---	---	---	---	---	---
Luce	---	---	---	---	---	---
Mackinac	1,000	15,200	15,200	1,000	15,000	15,000
Marquette	400	14,250	5,700	400	13,750	5,500
Menominee	7,000	13,710	96,000	7,000	13,430	94,000
Ontonagon	700	15,140	10,600	700	15,000	10,500
Schoolcraft	150	15,330	2,300	150	15,330	2,300
UPPER PENINSULA (1)	16,500	14,120	233,000	16,500	13,879	229,000
Antrim	1,300	14,620	19,000	1,300	14,230	18,500
Benzie	---	---	---	---	---	---
Charlevoix	1,300	14,230	18,500	1,300	13,850	18,000
Emmet	1,100	14,270	15,700	1,100	14,090	15,500
Grand Traverse	1,100	15,460	17,000	1,100	15,270	16,800
Kalkaska	300	13,670	4,100	300	13,330	4,000
Leelanau	800	15,000	12,000	800	15,000	12,000
Manistee	---	---	---	---	---	---
Missaukee	9,200	16,200	149,000	9,200	15,980	147,000
Wexford	1,100	13,820	15,200	1,100	13,640	15,000
NORTHWEST (2)	16,500	15,460	255,000	16,500	15,212	251,000
Alcona	800	16,000	12,800	800	15,630	12,500
Alpena	2,600	15,580	40,500	2,600	15,380	40,000
Cheboygan	1,600	15,630	25,000	1,600	15,310	24,500
Crawford	---	---	---	---	---	---
Iosco	1,400	16,070	22,500	1,400	15,360	21,500
Montmorency	1,000	14,300	14,300	1,000	14,000	14,000
Ogemaw	4,600	15,980	73,500	4,600	14,780	68,000
Oscoda	800	15,250	12,200	800	15,000	12,000
Otsego	800	14,630	11,700	800	14,380	11,500
Presque Isle	2,400	14,380	34,500	2,400	14,170	34,000
Roscommon	---	---	---	---	---	---
NORTHEAST (3)	16,000	15,440	247,000	16,000	14,875	238,000
Lake	400	15,250	6,100	400	15,000	6,000
Mason	3,100	15,390	47,700	3,100	15,160	47,000
Muskegon	3,800	15,320	58,200	3,900	14,620	57,000
Newaygo	7,800	15,260	119,000	7,700	15,260	117,500
Oceana	2,900	15,520	45,000	2,900	15,340	44,500
WEST CENTRAL (4)	18,000	15,330	276,000	18,000	15,111	272,000
Clare	2,600	15,580	40,500	2,600	15,380	40,000
Gladwin	1,800	15,560	28,000	1,800	15,280	27,500
Gratiot	8,000	15,880	127,000	8,000	15,630	125,000

MILK: Head, Production Per Cow, Total Production, 1989-90

DISTRICT AND COUNTY	1990			1989		
	Milk Cows	Milk Per Cow	Total Milk Produced	Milk Cows	Milk Per Cow	Total Milk Produced
	Head	Pounds	1,000 Pounds	Head	Pounds	1,000 Pounds
Isabella	10,000	15,150	151,500	9,900	15,000	148,500
Mecosta	6,000	15,450	92,700	6,000	15,330	92,000
Midland	400	15,750	6,300	400	15,000	6,000
Montcalm	8,600	14,650	126,000	8,600	14,420	124,000
Osceola	6,600	15,610	103,000	6,700	15,220	102,000
CENTRAL (5)	44,000	15,340	675,000	44,000	15,114	665,000
Arenac	2,700	14,440	39,000	2,800	13,750	38,500
Bay	1,400	15,710	22,000	1,400	15,360	21,500
Huron	16,900	15,980	270,000	16,700	15,750	263,000
Saginaw	4,100	15,120	62,000	4,100	14,880	61,000
Sanilac	25,400	16,060	408,000	25,500	15,920	406,000
Tuscola	6,500	15,540	101,000	6,500	14,310	93,000
EAST CENTRAL (6)	57,000	15,830	902,000	57,000	15,491	883,000
Allegan	14,800	15,200	227,000	15,000	15,130	227,000
Berrien	1,700	15,290	26,000	1,700	15,000	25,500
Cass	2,000	15,250	30,500	2,100	14,290	30,000
Kalamazoo	2,900	15,170	44,000	3,000	14,670	44,000
Kent	12,800	16,020	206,000	13,000	15,850	206,000
Ottawa	13,300	16,170	212,000	13,200	15,640	206,500
Van Buren	2,000	14,750	29,500	2,000	14,500	29,000
SOUTHWEST (7)	49,500	15,660	775,000	50,000	15,360	768,000
Barry	7,600	15,000	114,000	7,700	14,610	112,500
Branch	4,500	14,670	66,000	4,600	14,130	65,000
Calhoun	6,000	15,000	90,000	6,100	14,750	90,000
Clinton	15,600	15,770	246,000	15,400	15,710	242,000
Eaton	4,900	13,880	68,000	5,000	13,600	68,000
Hillsdale	7,600	15,000	114,000	7,500	14,930	112,000
Ingham	8,600	15,120	130,000	8,700	14,940	130,000
Ionia	13,300	14,590	194,000	13,500	14,300	193,000
Jackson	6,600	14,090	93,000	6,600	13,860	91,500
St. Joseph	3,700	14,050	52,000	3,700	13,920	51,500
Shiawassee	7,100	14,510	103,000	7,200	14,100	101,500
SOUTH CENTRAL (8)	85,500	14,850	1,270,000	86,000	14,616	1,257,000
Genesee	2,600	14,810	38,500	2,600	14,620	38,000
Lapeer	9,500	14,950	142,000	9,500	14,790	140,500
Lenawee	7,700	15,330	118,000	7,700	15,060	116,000
Livingston	5,600	14,290	80,000	5,700	13,860	79,000
Macomb	1,800	14,170	25,500	1,800	13,890	25,000
Monroe	1,300	14,620	19,000	1,300	14,230	18,500
Oakland	1,000	14,000	14,000	1,000	14,000	14,000
St. Clair	4,000	13,630	54,500	3,900	13,210	51,500
Washtenaw	7,400	14,460	107,000	7,400	14,190	105,000
Wayne	100	15,000	1,500	100	15,000	1,500
SOUTHEAST (9)	41,000	14,630	600,000	41,000	14,366	589,000
STATE	344,000	15,210	5,233,000	345,000	14,933	5,152,000

NOTE: Cattle estimates are not published for counties with less than 100 cattle.

HOGS AND PIGS, CHICKENS: December 1, 1989-90

DISTRICT AND COUNTY	All Hogs and Pigs		Sows Farrowed		Hens and Pullets of Laying Age	
	1990	1989	1990	1989	1990	1989
	Head				Birds	
Alger	---	---	---	---	---	---
Baraga	---	---	---	---	---	---
Chippewa	400	400	100	150	---	28,000
Delta	1,800	1,800	400	350	---	---
Dickinson	400	400	100	100	---	---
Gogebic	---	---	---	---	---	---
Houghton	---	---	---	---	8,000	7,500
Iron	100	100	---	---	---	---
Keweenaw	---	---	---	---	---	---
Luce	100	100	---	---	---	---
Mackinac	---	---	---	---	---	---
Marquette	100	150	---	---	---	---
Menominee	700	800	200	200	1,500	1,800
Ontonagon	---	100	---	---	---	---
Schoolcraft	300	500	200	200	---	---
UPPER PENINSULA (1)	4,000	4,500	1,000	1,000	12,000	40,000
Antrim	2,000	2,000	400	400	1,000	1,500
Benzie	1,100	900	250	250	---	---
Charlevoix	800	1,000	200	200	5,000	7,500
Emmet	400	300	100	---	1,000	1,000
Grand Traverse	3,800	3,900	800	600	1,000	1,100
Kalkaska	1,000	1,100	200	---	---	---
Leelanau	800	1,000	150	200	1,000	1,000
Manistee	500	700	100	150	---	---
Missaukee	3,200	3,100	700	750	---	---
Wexford	400	500	100	200	---	---
NORTHWEST (2)	14,000	14,500	3,000	3,000	11,000	15,000
Alcona	200	300	---	---	1,500	2,000
Alpena	600	800	150	200	1,000	1,200
Cheboygan	600	700	150	150	1,000	1,000
Crawford	---	---	---	---	---	---
Iosco	1,600	1,600	400	300	---	---
Montmorency	300	500	---	100	---	---
Ogemaw	1,400	1,500	300	250	---	---
Oscoda	300	400	---	---	---	1,000
Otsego	400	300	---	---	---	---
Presque Isle	1,500	1,800	300	350	1,000	1,500
Roscommon	100	100	---	---	---	---
NORTHEAST (3)	7,000	8,000	1,500	1,500	7,000	9,000
Lake	300	400	100	100	1,000	1,000
Mason	4,200	4,000	900	900	2,000	2,000
Muskegon	5,500	6,000	1,200	1,000	1,000	1,000
Newaygo	5,500	6,000	1,200	1,400	85,000	85,000
Oceana	8,500	9,600	2,100	2,100	1,000	34,000
WEST CENTRAL (4)	24,000	26,000	5,500	5,500	90,000	123,000
Clare	8,000	7,800	1,700	1,600	---	---
Gladwin	2,700	2,500	600	1,000	1,500	2,000
Gratiot	21,000	21,000	3,800	3,300	52,000	55,000

HOGS AND PIGS, CHICKENS: December 1, 1989-90

DISTRICT AND COUNTY	All Hogs and Pigs		Sows Farrowed		Hens and Pullets of Laying Age	
	1990	1989	1990	1989	1990	1989
	Head				Birds	
Isabella	18,500	18,500	3,600	3,600	225,000	190,000
Mecosta	7,500	7,700	1,600	1,600	1,500	2,000
Midland	5,300	5,500	1,300	1,300	1,000	---
Montcalm	10,000	11,000	2,300	2,400	2,000	2,500
Osceola	3,000	3,000	600	700	1,500	2,000
CENTRAL (5)	76,000	77,000	15,500	15,500	285,000	255,000
Arenac	5,000	5,500	1,000	1,400	2,500	3,000
Bay	1,500	2,000	300	400	1,500	2,000
Huron	43,000	44,000	7,800	8,100	775,000	900,000
Saginaw	8,500	7,500	1,400	1,200	6,000	8,000
Sanilac	14,500	16,500	2,800	2,800	5,000	7,000
Tuscola	15,500	16,500	3,200	2,600	250,000	245,000
EAST CENTRAL (6)	88,000	92,000	16,500	16,500	1,040,000	1,165,000
Allegan	100,000	100,000	21,000	18,500	815,000	815,000
Berrien	21,000	23,000	4,800	4,400	3,000	3,500
Cass	203,000	200,000	45,000	55,000	3,000	3,500
Kalamazoo	27,000	26,000	5,200	4,600	282,000	285,000
Kent	16,000	18,000	4,000	4,000	2,000	3,000
Ottawa	93,000	92,000	19,000	15,500	1,595,000	1,620,000
Van Buren	65,000	61,000	13,000	13,000	100,000	105,000
SOUTHWEST (7)	525,000	520,000	112,000	115,000	2,800,000	2,835,000
Barry	19,000	19,000	4,000	4,100	1,500	2,000
Branch	60,000	59,000	13,500	13,500	2,500	3,000
Calhoun	37,000	37,000	7,500	7,500	1,000	29,000
Clinton	31,000	30,000	6,000	5,800	16,000	20,000
Eaton	27,000	26,000	5,500	5,500	20,000	32,000
Hillsdale	44,000	45,000	8,000	9,000	64,000	64,000
Ingham	27,000	28,000	5,500	5,700	1,000	2,000
Ionia	36,000	35,000	7,000	7,200	890,000	890,000
Jackson	58,000	59,000	13,000	11,500	19,000	19,000
St. Joseph	49,000	48,000	11,000	13,000	30,000	32,000
Shiawassee	12,000	14,000	3,000	3,200	10,000	7,000
SOUTH CENTRAL (8)	400,000	400,000	84,000	86,000	1,055,000	1,100,000
Genesee	14,500	14,000	3,000	3,400	2,000	2,500
Lapeer	8,000	9,000	1,800	1,900	3,000	4,000
Lenawee	35,000	38,000	7,000	7,300	6,500	7,000
Livingston	5,000	5,500	1,000	1,000	1,500	2,000
Macomb	4,000	4,000	800	900	2,500	3,000
Monroe	15,500	16,500	3,000	3,000	53,000	14,000
Oakland	1,500	1,600	300	300	1,500	1,500
St. Clair	4,000	4,800	1,000	1,100	21,000	9,000
Washtenaw	24,000	24,000	5,000	5,000	8,000	13,000
Wayne	500	600	100	100	1,000	2,000
SOUTHEAST (9)	112,000	118,000	23,000	24,000	100,000	58,000
STATE	1,250,000	1,260,000	262,000	268,000	5,400,000	5,600,000

NOTE: Hog and pig estimates are not published for counties with less than 100 hogs.
Chicken estimates are not published for counties with less than 1,000 chickens.

CORN: Acreage, Yield, Production, 1990

DISTRICT AND COUNTY	Planted for all Purposes	GRAIN			SILAGE		
		Harvested	Yield	Production	Harvested	Yield	Production
	Acres	Acres		Bushels	Acres		Tons
Alger	---	---	---	---	---	---	—
Baraga	---	---	---	---	---	---	—
Chippewa	---	---	---	---	---	---	—
Delta	3,000	1,700	78.8	134,000	1,200	8.3	10,000
Dickinson	1,500	600	75.0	45,000	850	7.6	6,500
Gogebic	---	---	---	---	---	---	—
Houghton	---	---	---	---	---	---	—
Iron	---	---	---	---	---	---	—
Keweenaw	---	---	---	---	---	---	—
Luce	---	---	---	---	---	---	—
Mackinac	---	---	---	---	---	---	—
Marquette	---	---	---	---	---	---	—
Menominee	13,000	6,300	67.3	424,000	6,500	12.3	80,000
Ontonagon	---	---	---	---	---	---	—
Schoolcraft	---	---	---	---	---	---	—
UPPER PENINSULA (1)	20,000	9,500	70.5	670,000	10,000	11.0	110,000
Antrim	4,400	2,600	76.9	200,000	1,700	7.9	13,500
Benzie	1,200	300	66.7	20,000	850	10.0	8,500
Charlevoix	3,600	2,000	75.0	150,000	1,500	11.7	17,500
Emmet	2,500	1,700	65.9	112,000	700	10.0	7,000
Grand Traverse	7,200	5,500	70.9	390,000	1,600	6.9	11,000
Kalkaska	1,500	1,000	75.0	75,000	450	10.0	4,500
Leelanau	3,400	2,300	73.9	170,000	1,000	8.0	8,000
Manistee	1,700	1,300	61.5	80,000	300	10.0	3,000
Missaukee	12,000	4,600	96.7	445,000	7,200	11.1	80,000
Wexford	2,500	1,700	87.1	148,000	700	10.0	7,000
NORTHWEST (2)	40,000	23,000	77.8	1,790,000	16,000	10.0	160,000
Alcona	2,000	1,300	53.8	70,000	600	13.3	8,000
Alpena	6,900	5,100	81.4	415,000	1,700	10.6	18,000
Cheboygan	1,000	400	60.0	24,000	550	12.7	7,000
Crawford	---	---	---	---	---	---	—
Iosco	7,300	4,500	96.7	435,000	2,700	13.0	35,000
Montmorency	2,500	1,000	85.0	85,000	1,400	12.1	17,000
Ogemaw	10,000	6,300	103.2	650,000	3,400	13.8	47,000
Oscoda	800	200	65.0	13,000	550	10.0	5,500
Otsego	1,400	700	85.7	60,000	600	13.3	8,000
Presque Isle	3,100	1,000	78.0	78,000	2,000	12.3	24,500
Roscommon	---	---	---	---	---	---	—
NORTHEAST (3)	35,000	20,500	89.3	1,830,000	13,500	12.6	170,000
Lake	600	200	70.0	14,000	300	11.7	3,500
Mason	10,200	7,000	82.9	580,000	3,000	13.7	41,000
Muskegon	18,000	16,300	85.0	1,385,000	1,300	12.7	16,500
Newaygo	22,000	15,500	79.7	1,235,000	5,900	9.6	56,500
Oceana	8,200	6,000	82.7	496,000	2,000	11.3	22,500
WEST CENTRAL (4)	59,000	45,000	82.4	3,710,000	12,500	11.2	140,000
Clare	5,700	3,000	95.0	285,000	2,400	10.4	25,000
Gladwin	7,700	6,000	87.5	525,000	1,500	13.0	19,500
Gratiot	77,000	67,000	131.3	8,800,000	9,000	16.1	146,000

CORN: Acreage, Yield, Production, 1990

DISTRICT AND COUNTY	Planted for all Purposes	GRAIN Harvested	GRAIN Yield	GRAIN Production	SILAGE Harvested	SILAGE Yield	SILAGE Production
	Acres	Acres		Bushels	Acres		Tons
Isabella	43,000	29,500	97.3	2,870,000	12,500	13.6	170,000
Mecosta	12,800	10,500	100.0	1,050,000	2,000	10.5	21,000
Midland	20,800	19,000	107.9	2,050,000	1,000	13.5	13,500
Montcalm	44,000	36,000	112.8	4,060,000	7,000	10.7	75,000
Osceola	9,000	4,000	90.0	360,000	4,600	11.1	51,000
CENTRAL (5)	220,000	175,000	114.3	20,000,000	40,000	13.0	520,000
Arenac	16,500	14,000	125.0	1,750,000	2,000	17.0	34,000
Bay	38,500	37,000	134.1	4,960,000	1,000	12.5	12,500
Huron	140,000	110,000	127.3	14,000,000	26,000	19.6	510,000
Saginaw	73,000	70,000	127.9	8,950,000	2,000	16.3	32,500
Sanilac	119,000	91,000	122.5	11,150,000	25,000	14.3	356,500
Tuscola	83,000	78,000	127.6	9,950,000	4,000	16.1	64,500
EAST CENTRAL (6)	470,000	400,000	126.9	50,760,000	60,000	16.8	1,010,000
Allegan	77,000	68,000	120.6	8,200,000	8,000	15.9	127,000
Berrien	44,000	41,000	95.1	3,900,000	2,500	16.0	40,000
Cass	70,000	67,500	108.1	7,300,000	2,000	11.5	23,000
Kalamazoo	50,000	47,000	113.8	5,350,000	2,000	17.5	35,000
Kent	41,000	34,000	110.3	3,750,000	6,000	16.7	100,000
Ottawa	42,000	32,500	110.8	3,600,000	8,000	13.8	110,000
Van Buren	32,000	30,000	112.7	3,380,000	1,500	16.7	25,000
SOUTHWEST (7)	356,000	320,000	110.9	35,480,000	30,000	15.3	460,000
Barry	35,000	30,000	120.3	3,610,000	3,500	14.3	50,000
Branch	93,000	88,500	122.0	10,800,000	3,500	16.6	58,000
Calhoun	78,000	72,000	119.4	8,600,000	5,500	15.5	85,000
Clinton	66,000	51,000	119.6	6,100,000	13,000	16.9	220,000
Eaton	62,000	59,000	116.9	6,900,000	2,000	15.5	31,000
Hillsdale	84,000	77,000	116.2	8,950,000	6,000	15.0	90,000
Ingham	65,000	58,500	120.5	7,050,000	5,500	15.9	87,500
Ionia	69,000	60,000	112.5	6,750,000	7,000	14.6	102,000
Jackson	66,000	55,000	102.7	5,650,000	9,000	16.1	145,000
St. Joseph	94,000	90,000	112.2	10,100,000	3,000	13.0	39,000
Shiawassee	48,000	41,000	104.9	4,300,000	5,000	10.5	52,500
SOUTH CENTRAL (8)	760,000	682,000	115.6	78,810,000	63,000	15.2	960,000
Genesee	45,000	40,500	109.9	4,450,000	3,500	16.4	57,500
Lapeer	60,000	53,000	110.4	5,850,000	6,000	13.3	80,000
Lenawee	118,000	107,000	124.3	13,300,000	8,000	16.0	128,000
Livingston	33,000	29,000	96.6	2,800,000	3,000	16.7	50,000
Macomb	15,000	13,000	100.0	1,300,000	1,500	14.0	21,000
Monroe	65,000	61,000	126.2	7,700,000	3,000	15.0	45,000
Oakland	12,000	11,000	104.5	1,150,000	700	12.9	9,000
St. Clair	31,000	27,000	107.4	2,900,000	3,000	15.0	45,000
Washtenaw	58,000	51,000	103.9	5,300,000	6,000	15.1	90,500
Wayne	3,000	2,500	100.0	250,000	300	13.3	4,000
SOUTHEAST (9)	440,000	395,000	113.9	45,000,000	35,000	15.1	530,000
STATE	2,400,000	2,070,000	115.0	238,050,000	280,000	14.5	4,060,000

NOTE: Corn estimates are not published for counties with less than 500 acres.

CORN: Acreage, Yield, Production, 1989

DISTRICT AND COUNTY	Planted for all Purposes	GRAIN			SILAGE		
		Harvested	Yield	Production	Harvested	Yield	Production
	Acres	Acres	Bushels		Acres	Tons	
Alger	---	---	---	---	---	---	---
Baraga	---	---	---	---	---	---	---
Chippewa	---	---	---	---	---	---	---
Delta	2,600	1,300	79.2	103,000	1,250	8.8	11,000
Dickinson	1,500	550	72.7	40,000	900	7.8	7,000
Gogebic	---	---	---	---	---	---	---
Houghton	---	---	---	---	---	---	---
Iron	---	---	---	---	---	---	---
Keweenaw	---	---	---	---	---	---	---
Luce	---	---	---	---	---	---	---
Mackinac	---	---	---	---	---	---	---
Marquette	---	---	---	---	---	---	---
Menominee	13,000	5,800	66.0	383,000	7,000	8.0	56,000
Ontonagon	---	---	---	---	---	---	---
Schoolcraft	---	---	---	---	---	---	---
UPPER PENINSULA (1)	20,000	8,500	69.4	590,000	11,000	8.2	90,000
Antrim	4,500	2,900	48.3	140,000	1,300	7.3	9,500
Benzie	1,300	200	50.0	10,000	1,000	9.0	9,000
Charlevoix	3,600	1,900	65.8	125,000	1,600	7.5	12,000
Emmet	2,700	2,000	59.0	118,000	600	7.5	4,500
Grand Traverse	7,000	5,100	73.5	375,000	1,700	7.1	12,000
Kalkaska	1,800	1,150	47.8	55,000	600	7.5	4,500
Leelanau	3,600	2,500	78.0	195,000	1,000	8.0	8,000
Manistee	1,900	1,450	60.0	87,000	400	7.5	3,000
Missaukee	12,000	4,600	87.0	400,000	7,000	7.4	52,000
Wexford	2,600	1,700	73.5	125,000	800	6.9	5,500
NORTHWEST (2)	41,000	23,500	69.4	1,630,000	16,000	7.5	120,000
Alcona	2,200	1,200	47.5	57,000	950	7.4	7,000
Alpena	6,800	4,400	49.3	217,000	1,900	7.9	15,000
Cheboygan	1,400	600	58.3	35,000	750	10.0	7,500
Crawford	---	---	---	---	---	---	---
Iosco	7,500	4,400	86.4	380,000	2,900	12.1	35,000
Montmorency	2,400	800	83.8	67,000	1,500	9.7	14,500
Ogemaw	10,000	6,200	85.5	530,000	3,500	12.6	44,000
Oscoda	950	350	58.6	20,500	550	8.9	4,900
Otsego	1,500	630	87.3	55,000	830	8.4	7,000
Presque Isle	3,200	900	63.3	57,000	2,100	7.1	15,000
Roscommon	---	---	---	---	---	---	---
NORTHEAST (3)	36,000	19,500	72.8	1,420,000	15,000	10.0	150,000
Lake	500	250	72.0	18,000	200	8.5	1,700
Mason	10,000	6,500	80.0	520,000	3,400	7.6	26,000
Muskegon	17,500	15,500	90.0	1,395,000	1,600	7.7	12,300
Newaygo	22,000	15,000	87.0	1,305,000	6,700	7.8	52,000
Oceana	10,000	7,250	70.6	512,000	2,100	8.6	18,000
WEST CENTRAL (4)	60,000	44,500	84.3	3,750,000	14,000	7.9	110,000
Clare	5,000	2,000	72.5	145,000	2,700	7.8	21,000
Gladwin	7,500	5,300	82.1	435,000	2,000	8.5	17,000
Gratiot	76,000	64,500	122.5	7,900,000	11,000	15.0	165,000

CORN: Acreage, Yield, Production, 1989

DISTRICT AND COUNTY	Planted for all Purposes	GRAIN			SILAGE		
		Harvested	Yield	Production	Harvested	Yield	Production
	Acres	Acres		Bushels	Acres		Tons
Isabella	42,000	27,500	83.6	2,300,000	14,000	10.1	142,000
Mecosta	13,000	10,500	89.0	935,000	2,300	9.6	22,000
Midland	20,500	19,000	110.5	2,100,000	1,000	14.0	14,000
Montcalm	45,000	37,000	95.3	3,525,000	7,500	12.4	93,000
Osceola	9,000	3,200	87.5	280,000	5,500	12.0	66,000
CENTRAL (5)	218,000	169,000	104.3	17,620,000	46,000	11.7	540,000
Arenac	16,000	12,500	112.0	1,400,000	3,000	16.0	48,000
Bay	38,000	36,500	102.7	3,750,000	1,000	14.0	14,000
Huron	144,000	111,000	125.2	13,900,000	32,000	18.6	595,000
Saginaw	69,000	66,500	123.3	8,200,000	2,000	17.5	35,000
Sanilac	112,000	83,000	118.1	9,800,000	28,000	14.8	413,000
Tuscola	81,000	76,500	119.6	9,150,000	4,000	13.8	55,000
EAST CENTRAL (6)	460,000	386,000	119.7	46,200,000	70,000	16.6	1,160,000
Allegan	72,000	62,000	112.5	6,975,000	9,500	12.6	120,000
Berrien	43,000	39,500	110.1	4,350,000	3,000	12.7	38,000
Cass	66,000	64,500	124.0	8,000,000	1,300	11.5	15,000
Kalamazoo	49,000	47,000	127.7	6,000,000	1,700	15.9	27,000
Kent	44,000	36,500	124.0	4,525,000	7,000	12.4	87,000
Ottawa	41,000	31,500	109.5	3,450,000	9,000	14.4	130,000
Van Buren	30,000	28,000	103.6	2,900,000	1,500	15.3	23,000
SOUTHWEST (7)	345,000	309,000	117.2	36,200,000	33,000	13.3	440,000
Barry	34,000	29,500	112.7	3,325,000	4,000	12.5	50,000
Branch	87,000	83,000	117.2	9,725,000	3,500	13.1	46,000
Calhoun	72,000	66,000	112.1	7,400,000	5,500	15.8	87,000
Clinton	64,000	50,500	117.8	5,950,000	13,000	14.6	190,000
Eaton	59,000	54,500	119.3	6,500,000	3,000	13.0	39,000
Hillsdale	78,000	71,000	112.0	7,950,000	6,000	13.3	80,000
Ingham	60,000	53,000	120.8	6,400,000	6,500	13.7	89,000
Ionia	68,000	59,500	114.3	6,800,000	8,000	14.0	112,000
Jackson	59,000	48,500	110.3	5,350,000	10,000	16.2	162,000
St. Joseph	93,000	91,000	120.9	11,000,000	1,500	13.3	20,000
Shiawassee	46,000	40,500	93.8	3,800,000	5,000	11.0	55,000
SOUTH CENTRAL (8)	720,000	647,000	114.7	74,200,000	66,000	14.1	930,000
Genesee	40,000	35,000	94.3	3,300,000	4,000	10.5	42,000
Lapeer	57,000	51,000	98.0	5,000,000	5,500	10.5	58,000
Lenawee	108,000	100,000	126.0	12,600,000	6,000	13.8	83,000
Livingston	31,000	27,000	100.0	2,700,000	3,500	14.9	52,000
Macomb	16,000	14,000	107.1	1,500,000	1,500	12.0	18,000
Monroe	56,000	53,000	125.5	6,650,000	1,500	12.7	19,000
Oakland	11,000	10,500	123.8	1,300,000	300	11.7	3,500
St. Clair	28,000	25,000	112.0	2,800,000	2,500	12.8	32,000
Washtenaw	50,000	45,000	107.8	4,850,000	4,000	12.5	50,000
Wayne	3,000	2,500	120.0	300,000	200	12.5	2,500
SOUTHEAST (9)	400,000	363,000	112.9	41,000,000	29,000	12.4	360,000
STATE	2,300,000	1,970,000	113.0	222,610,000	300,000	13.0	3,900,000

NOTE: Corn estimates are not published for counties with less than 500 acres.

WHEAT: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres			Bushels	Acres			Bushels
Alger	---	---	---	---	80	70	40.0	2,800
Baraga	---	---	---	---	---	---	---	---
Chippewa	500	500	46.0	23,000	480	450	51.1	23,000
Delta	500	500	42.0	21,000	300	280	46.4	13,000
Dickinson	---	---	---	---	---	---	---	---
Gogebic	---	---	---	---	---	---	---	---
Houghton	---	---	---	---	---	---	---	---
Iron	100	100	40.0	4,000	100	90	40.0	3,600
Keweenaw	---	---	---	---	---	---	---	---
Luce	---	---	---	---	50	50	40.0	2,000
Mackinac	100	100	40.0	4,000	150	140	35.7	5,000
Marquette	---	---	---	---	---	---	---	---
Menominee	100	100	50.0	5,000	80	70	51.4	3,600
Ontonagon	100	100	40.0	4,000	100	90	40.0	3,600
Schoolcraft	100	100	40.0	4,000	60	60	40.0	2,400
UPPER PENINSULA (1)	1,600	1,600	43.1	69,000	1,400	1,300	45.4	59,000
Antrim	800	780	32.1	25,000	800	750	44.0	33,000
Benzie	100	100	30.0	3,000	100	80	31.3	2,500
Charlevoix	200	200	45.0	9,000	100	80	50.0	4,000
Emmet	200	200	35.0	7,000	100	80	31.3	2,500
Grand Traverse	2,000	1,850	37.8	70,000	2,000	1,750	42.3	74,000
Kalkaska	500	480	35.4	17,000	800	750	42.7	32,000
Leelanau	400	380	34.2	13,000	300	270	40.7	11,000
Manistee	500	480	31.3	15,000	500	450	33.3	15,000
Missaukee	900	880	30.7	27,000	700	640	32.8	21,000
Wexford	800	750	37.3	28,000	1,200	1,050	40.0	42,000
NORTHWEST (2)	6,400	6,100	35.1	214,000	6,600	5,900	40.2	237,000
Alcona	700	690	49.3	34,000	900	850	47.1	40,000
Alpena	2,000	1,980	39.9	79,000	2,100	2,000	35.0	70,000
Cheboygan	300	290	44.8	13,000	300	250	40.0	10,000
Crawford	---	---	---	---	---	---	---	---
Iosco	2,100	2,050	55.6	114,000	1,900	1,850	51.9	96,000
Montmorency	800	780	44.9	35,000	700	650	40.0	26,000
Ogemaw	1,700	1,670	49.7	83,000	2,000	1,900	45.3	86,000
Oscoda	---	---	---	---	---	---	---	---
Otsego	700	690	50.7	35,000	600	550	47.3	26,000
Presque Isle	1,700	1,650	39.4	65,000	1,500	1,450	34.5	50,000
Roscommon	---	---	---	---	---	---	---	---
NORTHEAST (3)	10,000	9,800	46.7	458,000	10,000	9,500	42.5	404,000
Lake	200	170	52.9	9,000	200	150	33.3	5,000
Mason	4,400	4,100	42.2	173,000	3,900	3,500	34.3	120,000
Muskegon	2,700	2,650	42.3	112,000	2,900	2,350	53.2	125,000
Newaygo	2,800	2,730	51.6	141,000	2,600	2,200	50.0	110,000
Oceana	1,900	1,850	51.4	95,000	2,400	2,100	45.2	95,000
WEST CENTRAL (4)	12,000	11,500	46.1	530,000	12,000	10,300	44.2	455,000
Clare	2,300	2,150	55.3	119,000	2,300	2,250	48.4	109,000
Gladwin	4,000	3,900	42.3	165,000	3,700	3,400	46.2	157,000
Gratiot	25,500	25,000	57.2	1,430,000	20,000	19,600	54.5	1,069,000

WHEAT: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Bushels		Acres		Bushels	
Isabella	16,500	16,000	51.3	820,000	15,000	14,600	38.8	567,000
Mecosta	3,200	3,100	45.2	140,000	3,000	2,900	41.0	119,000
Midland	5,500	5,400	54.6	295,000	3,900	3,700	40.3	149,000
Montcalm	22,000	21,500	46.0	990,000	21,000	20,500	40.2	824,000
Osceola	1,000	950	48.4	46,000	1,100	1,050	34.3	36,000
CENTRAL (5)	80,000	78,000	51.3	4,005,000	70,000	68,000	44.6	3,030,000
Arenac	7,000	6,800	62.5	425,000	5,500	5,300	63.2	335,000
Bay	9,000	8,700	60.1	523,000	6,500	6,000	57.5	345,000
Huron	52,000	50,000	61.5	3,075,000	42,000	41,000	68.9	2,825,000
Saginaw	35,000	34,500	65.2	2,250,000	27,000	26,500	58.2	1,541,000
Sanilac	55,000	53,500	64.1	3,430,000	50,000	49,000	60.9	2,983,000
Tuscola	32,000	31,500	55.7	1,755,000	29,000	28,200	62.3	1,758,000
EAST CENTRAL (6)	190,000	185,000	61.9	11,458,000	160,000	156,000	62.7	9,787,000
Allegan	14,000	13,600	51.1	695,000	10,000	9,300	46.5	432,000
Berrien	10,000	9,700	49.0	475,000	7,000	6,800	54.1	368,000
Cass	10,000	9,700	53.6	520,000	8,500	8,300	50.8	422,000
Kalamazoo	14,000	13,600	51.5	700,000	12,500	12,300	44.0	541,000
Kent	11,500	11,200	67.0	750,000	8,400	8,100	50.9	412,000
Ottawa	6,500	6,300	47.6	300,000	5,000	4,900	55.1	270,000
Van Buren	4,000	3,900	57.7	225,000	3,600	3,300	46.4	153,000
SOUTHWEST (7)	70,000	68,000	53.9	3,665,000	55,000	53,000	49.0	2,598,000
Barry	14,500	14,000	47.5	665,000	12,500	12,300	54.6	672,000
Branch	12,500	12,300	53.3	655,000	10,500	10,300	42.1	434,000
Calhoun	22,000	21,500	48.8	1,050,000	22,000	21,000	47.9	1,006,000
Clinton	36,000	34,000	51.8	1,760,000	28,000	27,000	55.7	1,504,000
Eaton	32,000	31,000	48.2	1,495,000	26,000	25,600	51.3	1,312,000
Hillsdale	16,000	15,700	53.5	840,000	15,500	15,000	47.9	719,000
Ingham	23,000	22,500	59.1	1,330,000	19,000	18,700	51.2	958,000
Ionia	31,000	30,500	51.3	1,565,000	28,000	27,300	45.7	1,248,000
Jackson	13,000	12,700	52.4	665,000	13,000	12,800	46.8	599,000
St. Joseph	7,500	7,300	41.9	306,000	7,500	7,400	52.4	388,000
Shiawassee	32,500	31,500	56.0	1,765,000	28,000	27,600	52.9	1,460,000
SOUTH CENTRAL (8)	240,000	233,000	51.9	12,096,000	210,000	205,000	50.2	10,300,000
Genesee	16,000	15,800	48.4	765,000	13,000	12,800	47.7	610,000
Lapeer	15,000	14,800	53.4	790,000	13,500	13,300	50.9	677,000
Lenawee	41,000	40,000	64.8	2,590,000	36,000	34,900	56.6	1,975,000
Livingston	9,000	8,900	40.4	360,000	8,500	8,300	50.8	422,000
Macomb	6,500	6,400	60.2	385,000	5,000	4,900	44.9	220,000
Monroe	27,500	27,000	63.7	1,720,000	20,500	20,000	62.3	1,245,000
Oakland	2,800	2,750	47.3	130,000	2,700	2,650	47.9	127,000
St. Clair	19,000	18,700	49.2	920,000	17,100	15,900	56.6	900,000
Washtenaw	22,000	21,500	48.4	1,040,000	17,500	17,100	47.7	815,000
Wayne	1,200	1,150	47.8	55,000	1,200	1,150	51.3	59,000
SOUTHEAST (9)	160,000	157,000	55.8	8,755,000	135,000	131,000	53.8	7,050,000
STATE	770,000	750,000	55.0	41,250,000	660,000	640,000	53.0	33,920,000

NOTE: Wheat estimates are not published for counties with less than 50 acres in 1989 and 100 acres in 1990.

SOYBEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Bushels		Acres		Bushels	
Alger	---	---	---	---	---	---	---	---
Baraga	---	---	---	---	---	---	---	---
Chippewa	---	---	---	---	---	---	---	---
Delta	---	---	---	---	80	70	27.1	1,900
Dickinson	---	---	---	---	---	---	---	---
Gogebic	---	---	---	---	---	---	---	---
Houghton	---	---	---	---	---	---	---	---
Iron	---	---	---	---	---	---	---	---
Keweenaw	---	---	---	---	---	---	---	---
Luce	---	---	---	---	---	---	---	---
Mackinac	---	---	---	---	---	---	---	---
Marquette	---	---	---	---	---	---	---	---
Menominee	---	---	---	---	---	---	---	
Ontonagon	---	---	---	---	---	---	---	---
Schoolcraft	---	---	---	---	---	---	---	---
UPPER PENINSULA (1)	100	90	27.8	2,500	100	90	26.7	2,400
Antrim	---	---	---	---	---	---	---	---
Benzie	---	---	---	---	---	---	---	---
Charlevoix	---	---	---	---	---	---	---	---
Emmet	---	---	---	---	60	60	25.0	1,500
Grand Traverse	---	---	---	---	130	120	26.7	3,200
Kalkaska	---	---	---	---	---	---	---	---
Leelanau	---	---	---	---	---	---	---	---
Manistee	---	---	---	---	---	---	---	---
Missaukee	---	---	---	---	50	50	26.0	1,300
Wexford	120	110	28.2	3,100	180	170	26.5	4,500
NORTHWEST (2)	400	380	27.6	10,500	500	480	26.3	12,600
Alcona	---	---	---	---	80	80	26.3	2,100
Alpena	500	470	30.6	14,400	550	510	26.9	13,700
Cheboygan	---	---	---	---	---	---	---	---
Crawford	---	---	---	---	---	---	---	---
Iosco	350	330	30.3	10,000	300	290	27.6	8,000
Montmorency	250	240	30.0	7,200	250	240	27.3	6,550
Ogemaw	120	110	29.1	3,200	180	170	27.1	4,600
Oscoda	---	---	---	---	---	---	---	---
Otsego	---	---	---	---	---	---	---	---
Presque Isle	---	---	---	---	---	---	---	---
Roscommon	---	---	---	---	---	---	---	---
NORTHEAST (3)	1,300	1,230	30.1	37,000	1,400	1,330	27.1	36,000
Lake	---	---	---	---	---	---	---	---
Mason	400	380	31.1	11,800	430	420	31.9	13,400
Muskegon	2,400	2,350	36.8	86,500	2,500	2,440	38.9	95,000
Newaygo	300	280	32.1	9,000	180	170	33.5	5,700
Oceana	---	---	---	---	70	50	26.0	1,300
WEST CENTRAL (4)	3,200	3,100	35.5	110,000	3,200	3,100	37.4	116,000
Clare	100	100	34.0	3,400	200	200	32.5	6,500
Gladwin	1,700	1,600	32.5	52,000	1,800	1,700	31.2	53,000
Gratiot	68,000	67,000	38.4	2,570,000	70,000	68,500	39.0	2,670,000

SOYBEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Bushels		Acres		Bushels	
Isabella	14,000	13,900	34.9	485,000	14,200	14,000	31.4	440,000
Mecosta	100	100	33.0	3,300	150	150	31.3	4,700
Midland	18,000	17,800	35,7	635,000	19,400	19,000	33.7	640,000
Montcalm	11,000	10,900	30.1	328,000	10,900	10,300	30.0	309,300
Osceola	100	100	33.0	3,300	150	150	30.0	4,500
CENTRAL (5)	113,000	111,500	36.6	4,080,000	116,800	114,000	36.2	4,128,000
Arenac	6,500	6,400	33.6	215,000	7,500	7,400	35.7	264,000
Bay	26,000	25,800	38.2	985,000	29,500	29,000	36.6	1,060,000
Huron	12,500	12,400	39.5	490,000	14,000	13,700	42.3	580,000
Saginaw	113,000	112,000	37.1	4,150,000	118,000	114,400	37.6	4,300,000
Sanilac	52,000	51,500	40.8	2,100,000	47,500	46,700	36.1	1,685,000
Tuscola	37,000	36,900	38.2	1,410,000	39,500	38,800	41.1	1,595,000
EAST CENTRAL (6)	247,000	245,000	38.2	9,350,000	256,000	250,000	37.9	9,484,000
Allegan	12,000	11,800	41.5	490,000	11,500	11,300	42.0	475,000
Berrien	26,000	25,800	34.5	890,000	26,500	26,300	37.3	980,000
Cass	25,000	24,800	36.7	910,000	26,000	25,800	40.8	1,052,000
Kalamazoo	21,000	20,700	37.2	770,000	21,500	21,300	35.8	762,000
Kent	4,500	4,400	40.9	180,000	4,000	3,850	39.5	152,000
Ottawa	1,500	1,400	37.1	52,000	1,500	1,450	31.0	45,000
Van Buren	10,000	9,800	30.4	298,000	10,000	9,700	32.7	317,000
SOUTHWEST (7)	100,000	98,700	36.4	3,590,000	101,000	99,700	37.9	3,783,000
Barry	15,000	14,800	35.5	525,000	12,000	11,800	42.0	496,000
Branch	35,000	34,800	40.2	1,400,000	35,000	34,400	32.5	1,117,000
Calhoun	25,000	24,900	40.2	1,000,000	24,000	23,700	31.2	740,000
Clinton	60,000	59,500	40.0	2,380,000	49,000	48,500	39.4	1,910,000
Eaton	32,000	31,800	39.6	1,260,000	33,000	32,400	38.0	1,230,000
Hillsdale	38,000	37,800	38.6	1,460,000	34,000	33,400	30.8	1,030,000
Ingham	28,000	27,900	40.1	1,120,000	25,000	24,800	43.0	1,067,000
Ionia	31,000	30,800	35.1	1,080,000	27,000	26,500	35.1	930,000
Jackson	9,000	8,900	37.6	335,000	7,000	6,900	38.4	265,000
St. Joseph	32,000	31,800	41.2	1,310,000	34,000	33,400	35.8	1,195,000
Shiawassee	75,000	74,000	35.5	2,630,000	65,000	64,000	36.4	2,328,000
SOUTH CENTRAL (8)	380,000	377,000	38.5	14,500,000	345,000	339,800	36.2	12,308,000
Genesee	24,000	23,800	32.8	780,000	22,000	21,400	31.3	670,000
Lapeer	11,000	10,900	33.0	360,000	9,000	8,900	32.6	290,000
Lenawee	100,000	99,500	42.3	4,210,000	96,000	95,000	37.7	3,585,000
Livingston	6,000	5,900	33.9	200,000	5,400	5,300	34.0	180,000
Macomb	18,000	17,900	36.9	660,000	15,000	14,700	36.7	540,000
Monroe	90,000	89,500	38.0	3,400,000	84,000	82,700	28.1	2,323,000
Oakland	500	500	34.0	17,000	600	600	35.0	21,000
St. Clair	32,000	31,800	34.9	1,110,000	24,000	23,500	34.9	819,000
Washtenaw	19,000	18,800	40.4	760,000	17,000	16,500	29.1	480,000
Wayne	4,500	4,400	32.5	143,000	3,000	2,900	35.2	102,000
SOUTHEAST (9)	305,000	303,000	38.4	11,640,000	276,000	271,500	33.2	9,010,000
STATE	1,150,000	1,140,000	38.0	43,320,000	1,100,000	1,080,000	36.0	38,880,000

NOTE: Soybean estimates are not published for counties with less than 50 acres in 1989 and 100 acres in 1990.

OATS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Bushels		Acres		Bushels	
Alger	100	90	44.4	4,000	100	90	44.4	4,000
Baraga	400	350	57.1	20,000	500	450	37.8	17,000
Chippewa	3,400	3,000	61.7	185,000	3,600	3,300	37.9	125,000
Delta	2,100	1,800	61.1	110,000	1,800	1,700	38.2	65,000
Dickinson	1,000	850	41.2	35,000	1,000	850	41.2	35,000
Gogebic	100	90	44.4	4,000	100	90	38.9	3,500
Houghton	1,100	900	44.4	40,000	1,100	1,000	43.0	43,000
Iron	1,100	900	38.9	35,000	1,200	1,050	38.1	40,000
Keweenaw	---	---	---	---	---	---	---	---
Luce	200	170	41.2	7,000	300	270	42.6	11,500
Mackinac	700	600	50.0	30,000	700	650	32.3	21,000
Marquette	400	350	42.9	15,000	400	350	40.0	14,000
Menominee	2,500	2,200	47.7	105,000	2,400	2,100	47.6	100,000
Ontonagon	1,300	1,200	33.3	40,000	1,200	1,050	44.8	47,000
Schoolcraft	600	500	40.0	20,000	600	550	43.6	24,000
UPPER PENINSULA (1)	15,000	13,000	50.0	650,000	15,000	13,500	40.7	550,000
Antrim	1,000	850	52.9	45,000	1,100	1,000	60.0	60,000
Benzie	100	90	44.4	4,000	100	90	40.0	3,600
Charlevoix	600	550	67.3	37,000	800	600	50.0	30,000
Emmet	1,200	1,100	59.1	65,000	1,300	1,200	46.7	56,000
Grand Traverse	1,100	950	52.6	50,000	1,200	1,100	48.2	53,000
Kalkaska	100	90	44.4	4,000	150	120	45.0	5,400
Leelanau	500	450	55.6	25,000	500	470	40.4	19,000
Manistee	200	180	55.6	10,000	250	220	40.9	9,000
Missaukee	2,600	2,200	65.9	145,000	2,700	2,400	33.3	80,000
Wexford	600	540	46.3	25,000	900	800	42.5	34,000
NORTHWEST (2)	8,000	7,000	58.6	410,000	9,000	8,000	43.8	350,000
Alcona	900	780	57.7	45,000	1,200	1,100	59.1	65,000
Alpena	7,800	7,200	61.1	440,000	7,800	7,400	46.6	345,000
Cheboygan	600	550	47.3	26,000	600	550	38.2	21,000
Crawford	---	---	---	---	---	---	---	---
Iosco	1,900	1,800	69.4	125,000	2,000	1,900	47.4	90,000
Montmorency	1,800	1,700	61.8	105,000	2,000	1,900	47.4	90,000
Ogemaw	3,400	3,000	58.3	175,000	3,800	3,100	58.1	180,000
Oscoda	200	180	55.6	10,000	150	110	48.2	5,300
Otsego	800	700	57.1	40,000	1,000	900	41.1	37,000
Presque Isle	5,500	5,000	54.0	270,000	5,400	5,000	59.0	295,000
Roscommon	100	90	44.4	4,000	50	40	42.5	1,700
NORTHEAST (3)	23,000	21,000	59.0	1,240,000	24,000	22,000	51.4	1,130,000
Lake	300	200	40.0	8,000	400	300	36.7	11,000
Mason	2,600	2,300	58.7	135,000	2,900	2,500	40.0	100,000
Muskegon	1,500	1,300	46.2	60,000	1,900	1,800	55.6	100,000
Newaygo	2,700	2,400	50.0	120,000	2,800	2,100	50.0	105,000
Oceana	900	800	58.8	47,000	1,000	800	42.5	34,000
WEST CENTRAL (4)	8,000	7,000	52.9	370,000	9,000	7,500	46.7	350,000
Clare	1,500	1,300	57.7	75,000	1,600	900	38.9	35,000
Gladwin	2,700	2,300	45.7	105,000	2,700	2,400	43.8	105,000
Gratiot	3,800	3,300	66.7	220,000	7,000	5,000	55.0	275,000

OATS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Bushels		Acres		Bushels	
Isabella	6,800	6,300	67.5	425,000	9,000	7,000	55.0	385,000
Mecosta	2,500	2,100	47.6	100,000	3,700	3,300	50.0	165,000
Midland	1,000	800	62.5	50,000	1,700	1,400	64.3	90,000
Montcalm	6,700	6,200	50.0	310,000	7,300	6,500	57.7	375,000
Osceola	2,000	1,700	50.0	85,000	2,000	1,500	46.7	70,000
CENTRAL (5)	27,000	24,000	57.1	1,370,000	35,000	28,000	53.6	1,500,000
Arenac	3,200	2,800	78.6	220,000	3,600	3,400	77.9	265,000
Bay	1,300	1,100	68.2	75,000	1,600	1,300	61.5	80,000
Huron	17,500	16,000	76.3	1,220,000	28,000	26,500	98.9	2,620,000
Saginaw	5,000	4,600	81.5	375,000	6,300	5,800	69.0	400,000
Sanilac	29,000	26,000	61.5	1,600,000	38,000	36,000	82.6	2,975,000
Tuscola	9,000	8,500	71.8	610,000	12,500	12,000	90.8	1,090,000
EAST CENTRAL (6)	65,000	59,000	69.5	4,100,000	90,000	85,000	87.4	7,430,000
Allegan	4,800	4,300	51.2	220,000	6,200	4,400	61.4	270,000
Berrien	800	700	57.1	40,000	1,800	1,700	71.8	122,000
Cass	1,800	1,700	47.1	80,000	2,700	2,100	63.3	133,000
Kalamazoo	2,300	2,100	42.9	90,000	3,500	3,300	54.5	180,000
Kent	5,000	4,400	52.3	230,000	6,500	6,200	69.4	430,000
Ottawa	3,200	2,800	44.6	125,000	4,400	3,500	65.7	230,000
Van Buren	1,100	1,000	45.0	45,000	1,900	1,800	58.3	105,000
SOUTHWEST (7)	19,000	17,000	48.8	830,000	27,000	23,000	63.9	1,470,000
Barry	3,200	2,700	42.6	115,000	3,800	3,600	65.3	235,000
Branch	2,200	2,000	50.0	100,000	3,000	2,700	59.3	160,000
Calhoun	5,000	4,700	47.9	225,000	5,700	5,400	72.2	390,000
Clinton	7,500	6,800	56.6	385,000	10,500	9,700	72.2	700,000
Eaton	3,000	2,700	57.4	155,000	4,700	4,500	60.0	270,000
Hillsdale	3,000	2,600	65.4	170,000	3,800	3,200	71.9	230,000
Ingham	2,500	2,300	60.9	140,000	4,000	3,800	65.8	250,000
Ionia	8,000	7,500	41.3	310,000	11,000	10,500	65.2	685,000
Jackson	4,400	3,700	52.7	195,000	6,000	5,700	66.7	380,000
St. Joseph	1,200	1,000	40.0	40,000	1,500	1,400	67.9	95,000
Shiawassee	11,000	10,000	46.5	465,000	15,000	14,500	70.7	1,025,000
SOUTH CENTRAL (8)	51,000	46,000	50.0	2,300,000	69,000	65,000	68.0	4,420,000
Genesee	4,000	3,700	58.1	215,000	5,500	5,300	52.8	280,000
Lapeer	7,000	6,600	58.3	385,000	10,500	9,500	60.5	575,000
Lenawee	4,000	3,500	68.6	240,000	6,200	4,800	59.4	285,000
Livingston	1,700	1,600	53.1	85,000	2,400	2,300	54.3	125,000
Macomb	1,500	1,400	71.4	100,000	2,700	2,600	48.8	127,000
Monroe	3,000	2,700	74.1	200,000	4,800	4,600	69.6	320,000
Oakland	600	520	57.7	30,000	1,200	1,150	56.5	65,000
St. Clair	4,500	4,000	46.3	185,000	8,800	8,400	66.1	555,000
Washtenaw	7,500	6,800	48.5	330,000	9,500	9,000	61.1	550,000
Wayne	200	180	55.6	10,000	400	350	51.4	18,000
SOUTHEAST (9)	34,000	31,000	57.4	1,780,000	52,000	48,000	60.4	2,900,000
STATE	250,000	225,000	58.0	13,050,000	330,000	300,000	67.0	20,100,000

NOTE: Oat estimates are not published for counties with less than 50 acres in 1989 and 100 acres in 1990.

ALL DRY BEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Pounds	Cwt.	Acres		Pounds	Cwt.
Alger	---	---	---	---	---	---	---	---
Baraga	---	---	---	---	---	---	---	---
Chippewa	---	---	---	---	---	---	---	---
Delta	1,500	1,300	1,110	14,400	1,700	1,650	910	15,000
Dickinson	---	---	---	---	---	---	---	---
Gogebic	---	---	---	---	---	---	---	---
Houghton	---	---	---	---	---	---	---	---
Iron	---	---	---	---	---	---	---	---
Keweenaw	---	---	---	---	---	---	---	---
Luce	---	---	---	---	---	---	---	---
Mackinac	---	---	---	---	---	---	---	---
Marquette	---	---	---	---	---	---	---	---
Menominee	---	---	---	---	---	---	---	---
Ontonagon	---	---	---	---	---	---	---	---
Schoolcraft	200	200	950	1,900	200	150	800	1,200
UPPER PENINSULA (1)	1,700	1,500	1,090	16,300	2,000	1,900	890	17,000
Antrim	300	250	1,640	4,100	200	190	1,260	2,400
Benzie	---	---	---	---	---	---	---	---
Charlevoix	---	---	---	---	250	240	1,250	3,000
Emmet	---	---	---	---	---	---	---	---
Grand Traverse	---	---	---	---	---	---	---	---
Kalkaska	---	---	---	---	---	---	---	---
Leelanau	---	---	---	---	---	---	---	---
Manistee	900	850	1,680	14,300	1,000	950	1,280	12,200
Missaukee	---	---	---	---	---	---	---	---
Wexford	---	---	---	---	---	---	---	---
NORTHWEST (2)	1,600	1,500	1,670	25,000	2,000	1,900	1,260	24,000
Alcona	300	250	1,600	4,000	200	180	1,220	2,200
Alpena	4,300	4,100	1,590	65,000	3,400	2,900	1,240	36,000
Cheboygan	---	---	---	---	250	230	1,260	2,900
Crawford	---	---	---	---	---	---	---	---
Iosco	250	250	1,520	3,800	350	300	1,200	3,600
Montmorency	900	800	1,630	13,000	1,000	950	1,260	12,000
Ogemaw	---	---	---	---	---	---	---	---
Oscoda	---	---	---	---	---	---	---	---
Otsego	250	250	1,520	3,800	400	350	1,200	4,200
Presque Isle	5,300	4,700	1,550	73,000	5,300	4,500	1,220	55,000
Roscommon	---	---	---	---	---	---	---	---
NORTHEAST (3)	11,500	10,500	1,570	165,000	11,000	9,500	1,230	117,000
Lake	---	---	---	---	---	---	---	---
Mason	---	---	---	---	---	---	---	---
Muskegon	---	---	---	---	---	---	---	---
Newaygo	---	---	---	---	---	---	---	---
Oceana	---	---	---	---	---	---	---	---
WEST CENTRAL (4)	200	200	1,350	2,700	300	300	1,200	3,600
Clare	200	200	1,500	3,000	200	150	1,330	2,000
Gladwin	1,800	1,700	1,530	26,000	1,200	1,000	1,300	13,000
Gratiot	30,000	28,000	1,600	448,000	28,000	18,000	1,190	214,000

ALL DRY BEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Pounds	Cwt.	Acres		Pounds	Cwt.
Isabella	8,000	7,300	1,510	110,000	8,100	7,700	1,250	96,000
Mecosta	2,000	1,800	1,500	27,000	1,500	1,150	1,300	15,000
Midland	10,000	9,000	1,640	148,000	14,000	13,000	1,370	178,000
Montcalm	16,000	15,000	1,650	248,000	18,000	16,000	1,680	269,000
Osceola	---	---	---	---	---	---	---	---
CENTRAL (5)	68,000	63,000	1,600	1,010,000	71,000	57,000	1,380	787,000
Arenac	11,000	10,500	1,600	168,000	9,000	8,000	1,400	112,000
Bay	36,000	34,000	1,660	566,000	24,000	21,000	1,550	326,000
Huron	87,000	84,000	1,700	1,428,000	79,000	75,000	1,710	1,286,000
Saginaw	21,000	20,000	1,800	360,000	17,000	15,000	1,400	210,000
Sanilac	25,000	23,500	1,500	352,000	15,000	13,000	1,350	175,000
Tuscola	55,000	52,000	1,740	906,000	36,000	32,000	1,600	511,000
EAST CENTRAL (6)	235,000	224,000	1,690	3,780,000	180,000	164,000	1,600	2,620,000
Allegan	---	---	---	---	200	200	1,450	2,900
Berrien	---	---	---	---	---	---	---	---
Cass	---	---	---	---	---	---	---	---
Kalamazoo	---	---	---	---	---	---	---	---
Kent	1,600	1,400	1,710	24,000	2,100	1,800	1,610	29,000
Ottawa	---	---	---	---	---	---	---	---
Van Buren	---	---	---	---	---	---	---	---
SOUTHWEST (7)	2,000	1,800	1,720	31,000	2,700	2,400	1,560	37,400
Barry	1,000	900	1,670	15,000	450	400	1,450	5,800
Branch	400	350	1,430	5,000	---	---	---	---
Calhoun	200	200	1,500	3,000	---	---	---	---
Clinton	2,600	2,400	1,670	40,000	3,900	3,400	1,420	48,200
Eaton	8,000	7,600	1,410	107,000	8,200	7,600	1,280	97,000
Hillsdale	---	---	---	---	---	---	---	---
Ingham	600	550	1,450	8,000	900	700	1,240	8,700
Ionia	4,700	4,400	1,570	69,000	4,700	4,500	1,310	59,000
Jackson	200	200	1,500	3,000	300	270	1,260	3,400
St. Joseph	2,500	2,300	1,570	36,000	---	---	---	---
Shiawassee	1,800	1,600	1,500	24,000	2,300	1,900	1,270	24,100
SOUTH CENTRAL (8)	22,000	20,500	1,510	310,000	21,000	19,000	1,310	249,000
Genesee	700	600	1,500	9,000	500	400	1,480	5,900
Lapeer	4,000	3,700	1,460	54,000	6,000	5,800	1,290	75,000
Lenawee	400	350	1,430	5,000	500	300	1,300	3,900
Livingston	200	200	1,550	3,100	200	180	1,330	2,400
Macomb	700	600	1,570	9,400	500	300	1,300	3,900
Monroe	300	250	1,600	4,000	400	350	1,310	4,600
Oakland	---	---	---	---	---	---	---	---
St. Clair	1,000	700	1,570	11,000	1,700	1,500	1,470	22,000
Washtenaw	600	500	1,600	8,000	---	---	---	---
Wayne	---	---	---	---	---	---	---	---
SOUTHEAST (9)	8,000	7,000	1,500	105,000	10,000	9,000	1,330	120,000
STATE	350,000	330,000	1,650	5,445,000	300,000	265,000	1,500	3,975,000

NOTE: Dry Bean estimates are not published for counties with less than 200 acres.
Yields are rounded to the nearest 10 pounds.

NAVY BEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Pounds	Cwt.	Acres		Pounds	Cwt.
Delta	---	---	---	---	---	---	---	---
Schoolcraft	---	---	---	---	---	---	---	---
UPPER PENINSULA (1)	---	---	---	---	---	---	---	---
Manistee	---	---	---	---	---	---	---	---
NORTHWEST (2)	300	300	1,600	4,800	300	300	1,200	3,600
Alpena	1,000	900	1,560	14,000	700	600	1,220	7,300
Montmorency	250	200	1,500	3,000	250	220	1,270	2,800
Presque Isle	400	350	1,430	5,000	500	450	980	4,400
NORTHEAST (3)	2,100	1,900	1,510	28,600	2,400	2,100	1,170	24,500
WEST CENTRAL (4)	100	100	1,300	1,300	100	100	1,200	1,200
Clare	---	---	---	---	200	150	1,330	2,000
Gladwin	1,200	1,100	1,460	16,100	900	700	1,270	8,900
Gratiot	17,000	16,000	1,540	247,000	22,500	13,500	1,160	156,000
Isabella	4,700	4,300	1,440	62,000	6,800	6,700	1,230	82,300
Mecosta	300	300	1,500	4,500	300	250	1,520	3,800
Midland	5,200	4,800	1,580	76,000	11,600	10,800	1,360	147,000
Montcalm	2,500	2,400	1,580	38,000	7,700	7,400	1,640	121,000
CENTRAL (5)	31,000	29,000	1,530	445,000	50,000	39,500	1,320	521,000
Arenac	7,000	6,700	1,540	103,000	6,100	5,200	1,380	72,000
Bay	26,000	24,500	1,600	391,000	20,100	17,700	1,560	276,000
Huron	71,000	68,500	1,630	1,117,000	68,000	64,500	1,710	1,102,000
Saginaw	15,000	14,300	1,720	246,000	14,400	12,500	1,380	173,000
Sanilac	20,000	19,000	1,440	273,000	13,200	11,300	1,350	152,000
Tuscola	40,000	38,000	1,670	635,000	28,200	24,800	1,590	394,000
EAST CENTRAL (6)	179,000	171,000	1,620	2,765,000	150,000	136,000	1,590	2,169,000
Kent	350	350	1,600	5,600	1,050	980	1,530	15,000
SOUTHWEST (7)	500	500	1,640	8,200	1,400	1,300	1,520	19,800
Barry	200	200	1,600	3,200	200	180	1,440	2,600
Clinton	1,700	1,600	1,600	25,600	2,600	2,300	1,260	29,000
Eaton	6,400	6,100	1,350	82,400	7,200	6,750	1,260	85,000
Ingham	---	---	---	---	900	700	1,240	8,700
Ionia	4,300	4,000	1,510	60,200	3,700	3,600	1,300	46,900
Jackson	---	---	---	---	300	270	1,260	3,400
St. Joseph	2,300	2,100	1,500	31,600	---	---	---	---
Shiawassee	1,100	1,000	1,440	14,400	1,500	1,400	1,260	17,700
SOUTH CENTRAL (8)	16,000	15,000	1,450	217,400	16,500	15,300	1,270	194,400
Lapeer	3,300	3,000	1,400	42,000	5,700	5,350	1,300	69,700
Livingston	200	200	1,550	3,100	---	---	---	---
Monroe	300	200	1,500	3,000	---	---	---	---
St. Clair	700	500	1,500	7,500	1,350	1,340	1,450	19,400
SOUTHEAST (9)	6,000	5,200	1,440	74,700	9,300	8,400	1,320	111,500
STATE	235,000	223,000	1,590	3,545,000	230,000	203,000	1,500	3,045,000

NOTE: Navy Bean estimates are not published for counties with less than 200 acres.
Yields are rounded to the nearest 10 pounds.

OTHER DRY BEANS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Pounds	Cwt.	Acres		Pounds	Cwt.
Delta	1,500	1,300	1,110	14,400	---	---	---	---
Schoolcraft	200	200	950	1,900	---	---	---	---
UPPER PENINSULA (1)	1,700	1,500	1,090	16,300	2,000	1,900	890	17,000
Manistee	900	850	1,680	14,300	---	---	---	---
NORTHWEST (2)	1,300	1,200	1,680	20,200	1,700	1,600	1,280	20,400
Alpena	3,300	3,200	1,590	51,000	2,700	2,300	1,250	28,700
Montmorency	650	600	1,670	10,000	750	730	1,260	9,200
Presque Isle	4,900	4,350	1,560	68,000	4,800	4,050	1,250	50,600
NORTHEAST (3)	9,400	8,600	1,590	136,400	8,600	7,400	1,250	92,500
WEST CENTRAL (4)	100	100	1,400	1,400	200	200	1,200	2,400
Gladwin	600	600	1,650	9,900	300	300	1,370	4,100
Gratiot	13,000	12,000	1,680	201,000	5,500	4,500	1,290	58,000
Isabella	3,300	3,000	1,600	48,000	1,300	1,000	1,370	13,700
Mecosta	1,700	1,500	1,500	22,500	1,200	900	1,240	11,200
Midland	4,800	4,200	1,710	72,000	2,400	2,200	1,410	31,000
Montcalm	13,500	12,600	1,670	210,000	10,300	8,600	1,720	148,000
CENTRAL (5)	37,000	34,000	1,660	565,000	21,000	17,500	1,520	266,000
Arenac	4,000	3,800	1,710	65,000	2,900	2,800	1,430	40,000
Bay	10,000	9,500	1,840	175,000	3,900	3,300	1,520	50,000
Huron	16,000	15,500	2,010	311,000	11,000	10,500	1,750	184,000
Saginaw	6,000	5,700	2,000	114,000	2,600	2,500	1,480	37,000
Sanilac	5,000	4,500	1,760	79,000	1,800	1,700	1,350	23,000
Tuscola	15,000	14,000	1,940	271,000	7,800	7,200	1,630	117,000
EAST CENTRAL (6)	56,000	53,000	1,920	1,015,000	30,000	28,000	1,610	451,000
Kent	1,250	1,050	1,750	18,400	1,050	870	1,610	14,000
SOUTHWEST (7)	1,500	1,300	1,750	22,800	1,300	1,100	1,600	17,600
Barry	800	700	1,690	11,800	250	220	1,450	3,200
Branch	400	350	1,430	5,000	---	---	---	---
Calhoun	200	200	1,500	3,000	---	---	---	---
Clinton	900	800	1,800	14,400	1,300	1,100	1,750	19,200
Eaton	1,600	1,500	1,640	24,600	1,000	850	1,410	12,000
Ingham	600	550	1,450	8,000	---	---	---	---
Ionia	400	400	2,200	8,800	1,000	900	1,340	12,100
Jackson	200	200	1,500	3,000	---	---	---	---
St. Joseph	200	200	2,200	4,400	---	---	---	---
Shiawassee	700	600	1,600	9,600	800	500	1,280	6,400
SOUTH CENTRAL (8)	6,000	5,500	1,680	92,600	4,500	3,700	1,480	54,600
Genesee	700	600	1,500	9,000	---	---	---	---
Lapeer	700	700	1,710	12,000	300	250	1,320	3,300
St. Clair	300	200	1,750	3,500	350	310	1,480	4,600
SOUTHEAST (9)	2,000	1,800	1,680	30,300	700	600	1,420	8,500
STATE	115,000	107,000	1,780	1,900,000	70,000	62,000	1,500	930,000

NOTE: Dry Bean estimates are not published for counties with less than 200 acres.
Yields are rounded to the nearest 10 pounds.

BARLEY: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres			Bushels	Acres			Bushels
Alger	500	450	44.4	20,000	400	350	52.9	18,500
Baraga	400	370	51.4	19,000	400	350	54.3	19,000
Chippewa	600	500	50.0	25,000	500	450	48.9	22,000
Delta	2,500	2,250	53.3	120,000	2,400	2,200	55.5	122,000
Dickinson	200	180	55.6	10,000	250	180	38.9	7,000
Gogebic	---	---	---	---	---	---	---	---
Houghton	500	470	59.6	28,000	400	350	51.4	18,000
Iron	150	140	60.0	8,400	100	90	52.2	4,700
Keweenaw	---	---	---	---	---	---	---	---
Luce	300	250	60.0	15,000	400	350	57.1	20,000
Mackinac	200	190	58.4	11,100	200	140	50.0	7,000
Marquette	300	280	58.6	16,400	300	250	48.0	12,000
Menominee	2,300	2,100	52.4	110,000	2,600	2,400	39.2	94,000
Ontonagon	---	---	---	---	50	40	45.0	1,800
Schoolcraft	500	480	52.1	25,000	500	450	42.2	19,000
UPPER PENINSULA (1)	8,500	7,700	53.2	410,000	8,500	7,600	48.0	365,000
Antrim	---	---	---	---	60	50	50.0	2,500
Benzie	---	---	---	---	---	---	---	---
Charlevoix	300	280	65.7	18,400	250	200	45.0	9,000
Emmet	100	90	67.8	6,100	100	90	55.6	5,000
Grand Traverse	150	140	66.4	9,300	---	---	---	---
Kalkaska	---	---	---	---	---	---	---	---
Leelanau	---	---	---	---	---	---	---	---
Manistee	100	100	55.0	5,500	150	100	40.0	4,000
Missaukee	---	---	---	---	180	120	45.8	5,500
Wexford	---	---	---	---	---	---	---	---
NORTHWEST (2)	800	750	64.0	48,000	800	600	46.7	28,000
Alcona	250	240	58.3	14,000	250	200	55.0	11,000
Alpena	600	570	49.1	28,000	600	430	41.9	18,000
Cheboygan	900	880	43.2	38,000	600	500	47.0	23,500
Crawford	---	---	---	---	---	---	---	---
Iosco	200	190	54.7	10,400	250	200	52.5	10,500
Montmorency	250	230	39.1	9,000	250	200	37.5	7,500
Ogemaw	900	850	60.0	51,000	600	500	54.0	27,000
Oscoda	---	---	---	---	50	40	42.5	1,700
Otsego	100	90	45.6	4,100	100	80	41.3	3,300
Presque Isle	1,250	1,200	48.3	58,000	800	550	39.1	21,500
Roscommon	---	---	---	---	---	---	---	---
NORTHEAST (3)	4,500	4,300	50.0	215,000	3,500	2,700	45.9	124,000
Lake	---	---	---	---	---	---	---	---
Mason	120	100	55.0	5,500	300	220	43.2	9,500
Muskegon	---	---	---	---	170	120	45.8	5,500
Newaygo	100	90	52.2	4,700	250	200	42.5	8,500
Oceana	---	---	---	---	70	50	42.0	2,100
WEST CENTRAL (4)	400	350	54.3	19,000	800	600	43.3	26,000
Clare	400	390	44.9	17,500	300	250	48.0	12,000
Gladwin	200	190	57.9	11,000	300	250	40.0	10,000
Gratiot	---	---	---	---	150	110	54.5	6,000

BARLEY: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres			Bushels	Acres			Bushels
Isabella	1,200	1,150	59.1	68,000	1,400	1,150	43.5	50,000
Mecosta	250	240	56.3	13,500	400	350	45.7	16,000
Midland	---	---	---	---	50	40	50.0	2,000
Montcalm	750	740	37.8	28,000	1,000	900	43.3	39,000
Osceola	400	390	57.7	22,500	400	350	57.1	20,000
CENTRAL (5)	3,400	3,300	51.5	170,000	4,000	3,400	45.6	155,000
Arenac	150	120	58.3	7,000	100	90	60.0	5,400
Bay	100	90	57.8	5,200	100	90	60.0	5,400
Huron	12,500	12,300	71.1	875,000	10,500	10,000	74.0	740,000
Saginaw	150	140	48.6	6,800	100	90	57.8	5,200
Sanilac	4,900	4,800	64.6	310,000	5,000	4,700	67.0	315,000
Tuscola	2,200	2,150	67.9	146,000	1,700	1,530	74.5	114,000
EAST CENTRAL (6)	20,000	19,600	68.9	1,350,000	17,500	16,500	71.8	1,185,000
Allegan	---	---	---	---	250	200	45.0	9,000
Berrien	---	---	---	---	50	40	50.0	2,000
Cass	300	280	48.2	13,500	400	350	54.3	19,000
Kalamazoo	300	280	55.4	15,500	250	220	50.0	11,000
Kent	550	450	46.7	21,000	800	700	44.3	31,000
Ottawa	---	---	---	---	250	220	50.0	11,000
Van Buren	300	280	41.1	11,500	400	370	45.9	17,000
SOUTHWEST (7)	1,800	1,600	46.9	75,000	2,400	2,100	47.6	100,000
Barry	450	430	57.0	24,500	450	400	48.8	19,500
Branch	---	---	---	---	150	130	57.7	7,500
Calhoun	---	---	---	---	100	90	61.1	5,500
Clinton	250	230	56.5	13,000	700	600	58.3	35,000
Eaton	150	150	60.0	9,000	250	220	59.1	13,000
Hillsdale	---	---	---	---	100	90	44.4	4,000
Ingham	400	390	66.7	26,000	400	350	55.7	19,500
Ionia	500	480	62.5	30,000	700	600	45.8	27,500
Jackson	200	200	65.0	13,000	350	300	50.0	15,000
St. Joseph	---	---	---	---	50	40	50.0	2,000
Shiawassee	550	520	46.2	24,000	750	680	56.6	38,500
SOUTH CENTRAL (8)	2,800	2,700	57.4	155,000	4,000	3,500	53.4	187,000
Genesee	100	100	50.0	5,000	300	280	55.4	15,500
Lapeer	900	860	51.2	44,000	900	850	49.4	42,000
Lenawee	100	100	48.0	4,800	200	160	47.5	7,600
Livingston	---	---	---	---	50	40	60.0	2,400
Macomb	---	---	---	---	90	80	50.0	4,000
Monroe	150	150	52.0	7,800	150	130	50.0	6,500
Oakland	---	---	---	---	---	---	---	—
St. Clair	500	480	47.9	23,000	600	550	48.2	26,500
Washtenaw	900	860	53.5	46,000	1,200	900	50.0	45,000
Wayne	---	---	---	---	---	---	---	—
SOUTHEAST (9)	2,800	2,700	51.1	138,000	3,500	3,000	50.0	150,000
STATE	45,000	43,000	60.0	2,580,000	45,000	40,000	58.0	2,320,000

NOTE: Barley estimates are not published for counties with less than 50 acres in 1989 and 100 acres in 1990.

POTATOES: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Cwt.		Acres		Cwt.	
Alger	---	---	---	---	---	---	---	---
Baraga	---	---	---	---	---	---	---	---
Chippewa	---	---	---	---	---	---	---	---
Delta	1,000	950	260	247,000	1,200	1,100	200	220,000
Dickinson	1,100	1,050	290	305,000	1,300	1,200	200	237,000
Gogebic	---	---	---	---	---	---	---	---
Houghton	---	---	---	---	---	---	---	---
Iron	500	500	275	138,000	600	590	195	115,000
Keweenaw	---	---	---	---	---	---	---	---
Luce	300	300	265	80,000	500	450	200	89,000
Mackinac	---	---	---	---	---	---	---	---
Marquette	300	300	250	75,000	300	270	190	51,000
Menominee	---	---	---	---	---	---	---	---
Ontonagon	---	---	---	---	---	---	---	---
Schoolcraft	400	400	280	112,000	---	---	---	---
UPPER PENINSULA (1)	3,900	3,800	265	1,014,000	4,200	3,900	200	771,000
Antrim	1,500	1,400	270	381,000	1,300	1,200	300	357,000
Benzie	---	---	---	---	---	---	---	---
Charlevoix	---	---	---	---	---	---	---	---
Emmet	600	550	220	121,000	650	630	150	93,000
Grand Traverse	---	---	---	---	---	---	---	---
Kalkaska	900	850	290	247,000	450	430	240	103,000
Leelanau	---	---	---	---	---	---	---	---
Manistee	---	---	---	---	300	290	200	58,000
Missaukee	---	---	---	---	350	330	230	76,000
Wexford	---	---	---	---	---	---	---	---
NORTHWEST (2)	3,300	3,100	265	828,000	3,100	2,900	250	692,000
Alcona	---	---	---	---	---	---	---	---
Alpena	1,000	950	170	162,000	550	510	155	80,000
Cheboygan	---	---	---	---	---	---	---	---
Crawford	---	---	---	---	---	---	---	---
Iosco	---	---	---	---	---	---	---	---
Montmorency	---	---	---	---	---	---	---	---
Ogemaw	---	---	---	---	---	---	---	---
Oscoda	---	---	---	---	---	---	---	---
Otsego	900	850	250	213,000	800	790	190	149,000
Presque Isle	3,500	3,400	250	850,000	3,200	2,950	175	516,000
Roscommon	---	---	---	---	---	---	---	---
NORTHEAST (3)	5,500	5,300	235	1,244,000	4,600	4,300	175	755,000
Lake	---	---	---	---	---	---	---	---
Mason	---	---	---	---	---	---	---	---
Muskegon	---	---	---	---	---	---	---	---
Newaygo	---	---	---	---	---	---	---	---
Oceana	---	---	---	---	---	---	---	---
WEST CENTRAL (4)	200	200	250	50,000	300	300	225	67,000
Clare	---	---	---	---	---	---	---	---
Gladwin	---	---	---	---	---	---	---	---
Gratiot	400	400	250	100,000	400	350	270	95,000

POTATOES: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Cwt.		Acres		Cwt.	
Isabella	---	---	---	---	---	---	---	---
Mecosta	1,200	1,150	330	380,000	900	870	330	288,000
Midland	---	---	---	---	400	350	260	91,000
Montcalm	10,500	10,400	325	3,380,000	10,000	9,550	325	3,100,000
Osceola	---	---	---	---	---	---	---	---
CENTRAL (5)	12,500	12,300	320	3,953,000	12,000	11,400	320	3,645,000
Arenac	1,500	1,400	250	350,000	1,500	1,400	230	322,000
Bay	7,000	6,850	240	1,644,000	5,300	5,100	200	1,028,000
Huron	500	500	275	138,000	500	490	265	130,000
Saginaw	600	500	240	120,000	400	380	230	88,000
Sanilac	600	500	300	150,000	500	480	305	146,000
Tuscola	1,800	1,750	270	473,000	2,300	2,150	275	586,000
EAST CENTRAL (6)	12,000	11,500	250	2,875,000	10,500	10,000	230	2,300,000
Allegan	1,400	1,350	290	391,000	1,400	650	275	180,000
Berrien	---	---	---	---	---	---	---	---
Cass	---	---	---	---	---	---	---	---
Kalamazoo	---	---	---	---	---	---	---	---
Kent	500	450	290	131,000	450	430	255	110,000
Ottawa	---	---	---	---	---	---	---	---
Van Buren	---	---	---	---	---	---	---	---
SOUTHWEST (7)	2,300	2,200	280	620,000	2,300	1,500	250	376,000
Barry	---	---	---	---	---	---	---	---
Branch	---	---	---	---	---	---	---	---
Calhoun	---	---	---	---	---	---	---	---
Clinton	---	---	---	---	---	---	---	---
Eaton	850	800	230	184,000	750	650	175	114,000
Hillsdale	---	---	---	---	---	---	---	---
Ingham	250	200	270	54,000	---	---	---	---
Ionia	---	---	---	---	---	---	---	---
Jackson	---	---	---	---	---	---	---	---
St. Joseph	---	---	---	---	---	---	---	---
Shiawassee	300	300	250	75,000	350	150	160	24,000
SOUTH CENTRAL (8)	2,000	1,900	240	455,000	1,800	1,400	175	246,000
Genesee	500	500	230	115,000	300	270	200	54,000
Lapeer	500	500	260	130,000	700	600	160	96,000
Lenawee	1,000	950	240	228,000	1,000	950	290	275,000
Livingston	---	---	---	---	---	---	---	---
Macomb	---	---	---	---	500	450	125	56,000
Monroe	1,600	1,550	260	403,000	1,600	1,500	170	255,000
Oakland	---	---	---	---	---	---	---	---
St. Clair	---	---	---	---	---	---	---	---
Washtenaw	300	300	280	84,000	400	340	120	40,000
Wayne	---	---	---	---	---	---	---	---
SOUTHEAST (9)	4,300	4,200	255	1,076,000	4,700	4,300	185	798,000
STATE	46,000	44,500	272	12,115,000	43,500	40,000	241	9,650,000

NOTE: Potato estimates are not published for counties with less than 200 acres.
Yields are rounded to the nearest 5 hundred-weight.

SUGARBEETS: Acreage, Yield, Production, 1989-90

DISTRICT AND COUNTY	1990				1989			
	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	Acres		Tons		Acres		Tons	
UPPER PENINSULA (1)	---	---	---	---	---	---	---	---
NORTHWEST (2) ...	---	---	---	---	---	---	---	---
NORTHEAST (3)	300	300	20.0	6,000	100	100	11.0	1,100
WEST CENTRAL (4) .	---	---	---	---	---	---	---	---
Clare	---	---	---	---	---	---	---	---
Gladwin	800	800	20.0	16,000	800	800	12.5	10,000
Gratiot	18,700	18,200	22.0	400,000	16,900	15,600	16.3	255,000
Isabella	1,300	1,200	20.0	24,000	900	800	13.3	10,600
Mecosta	---	---	---	---	---	---	---	---
Midland	4,000	3,900	19.7	77,000	3,200	3,000	14.3	42,800
Montcalm	---	---	---	---	---	---	---	---
Osceola	---	---	---	---	---	---	---	---
CENTRAL (5)	25,200	24,400	21.4	523,000	22,100	20,500	15.8	324,000
Arenac	4,900	4,800	20.8	100,000	4,900	4,800	15.2	73,000
Bay	22,500	21,900	20.0	439,000	21,900	21,300	15.5	331,000
Huron	30,800	30,700	21.6	662,000	31,000	30,700	19.3	591,000
Saginaw	19,900	19,600	21.3	417,000	18,600	18,200	17.4	316,000
Sanilac	14,000	13,900	20.1	279,000	13,800	13,600	17.6	240,000
Tuscola	35,400	34,800	20.5	713,000	34,800	34,600	17.2	594,000
EAST CENTRAL (6) ..	127,500	125,700	20.8	2,610,000	125,000	123,200	17.4	2,145,000
SOUTHWEST (7) ...	---	---	---	---	---	---	---	---
Barry	---	---	---	---	---	---	---	---
Branch	---	---	---	---	---	---	---	---
Calhoun	---	---	---	---	---	---	---	---
Clinton	---	---	---	---	---	---	---	---
Eaton	---	---	---	---	---	---	---	---
Hillsdale	---	---	---	---	---	---	---	---
Ingham	---	---	---	---	---	---	---	---
Ionia	---	---	---	---	---	---	---	---
Jackson	---	---	---	---	---	---	---	---
St. Joseph	---	---	---	---	---	---	---	---
Shiawassee	---	---	---	---	---	---	---	---
SOUTH CENTRAL (8)	---	---	---	---	200	200	17.0	3,400
Genesee	---	---	---	---	---	---	---	---
Lapeer	---	---	---	---	---	---	---	---
Lenawee	3,100	2,900	19.7	57,000	3,000	2,600	14.8	38,400
Livingston	---	---	---	---	---	---	---	---
Macomb	---	---	---	---	---	---	---	---
Monroe	2,500	2,400	17.5	42,000	2,250	2,050	14.1	29,000
Oakland	---	---	---	---	---	---	---	---
St. Clair	1,300	1,200	21.7	26,000	1,200	1,200	18.5	22,200
Washtenaw	---	---	---	---	---	---	---	---
Wayne	---	---	---	---	---	---	---	---
SOUTHEAST (9)	7,000	6,600	19.2	127,000	6,600	6,000	15.3	91,500
STATE	160,000	157,000	20.8	3,266,000	154,000	150,000	17.1	2,565,000

NOTE: Sugarbeet estimates are not published for counties with less than 500 acres.

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